JANUARY 1983 NUMBER 461 -- Part II

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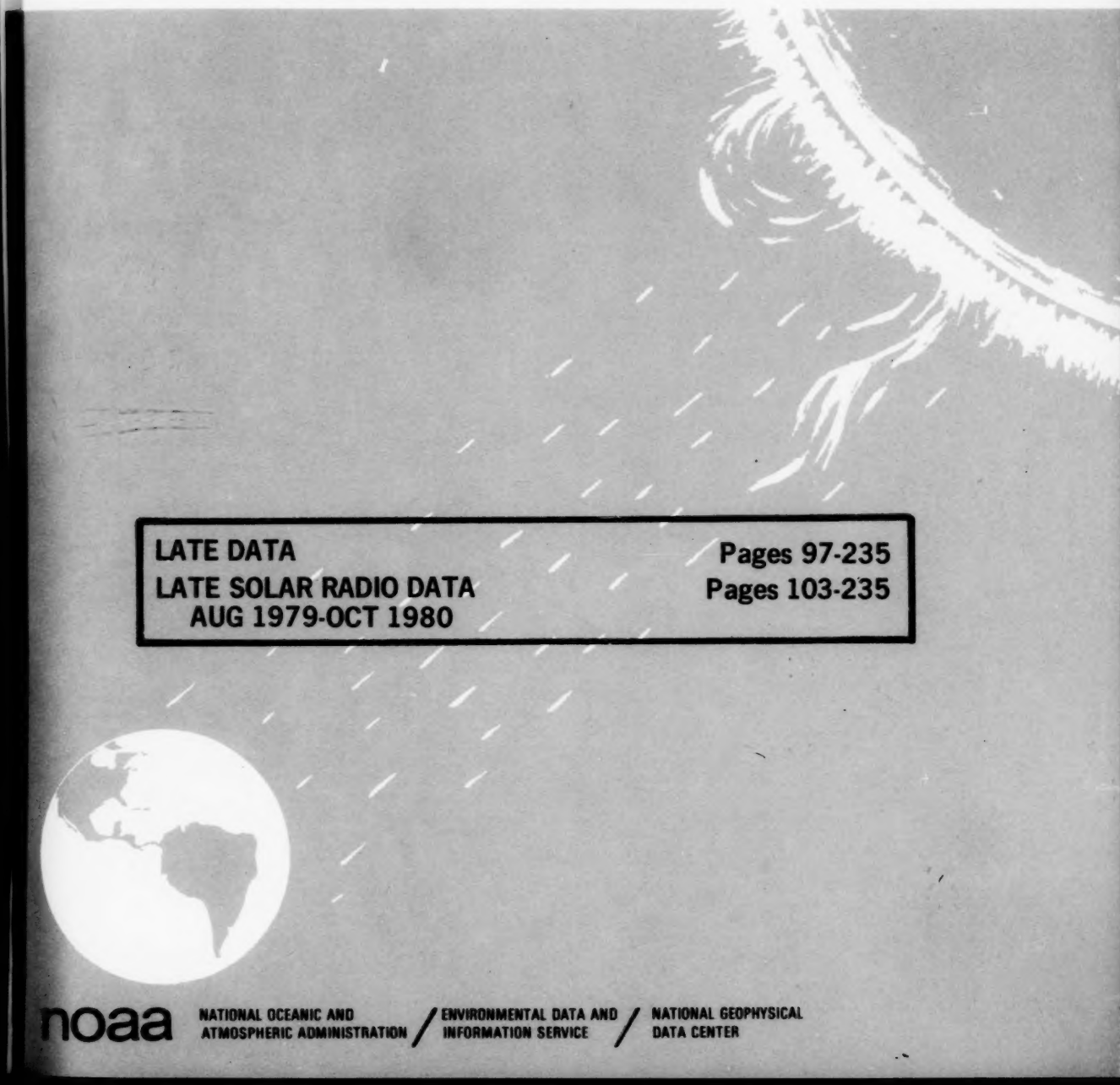
Solar-Geophysical Data comprehensive reports

Data for July 1982 & Miscellanea

Explanation of Data Reports Issued as Number 450 (Supplement) February 1982



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Solar - Geophysical Data

Part II (Comprehensive Reports)

NO. 461 JANUARY 1983

DATA FOR
JULY 1982

Michael A. Chinnery, Director
NATIONAL GEOPHYSICAL DATA CENTER
BOULDER, COLORADO

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SOLAR-GEOPHYSICAL DATA

No. 461

Issued in two parts

Helen E. Coffey, Editor

Joe H. Allen, Chief
Solar-Terrestrial Physics Division

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C.4h	Solar Radio Spectral Obs. (Dwingeloo)	450A122												
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F.1h	Cosmic Ray Neutron Counts (Thule)	450A134	451A151	452A151	453A135	454A131	455A152	456A148	457A153	458A143	459A149	460A119	461A123	
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"450A 42" listed under 1981 Dec means that the sunspot drawings for Dec 1981 were contained in Solar-Geophysical Data Number 450 - Part I, beginning on page 42.

A = Part I, B = Part II.

----- = no data available.
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SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	245	LEAR	4	S/F	0006.1	0007.3	3.7	19.0			QL=6 ST=2 TYP=3
	650	GORK	4	S/F	0353.3	0353.8	1.1	30.0	6.0		
	950	GORK	3	S	0353.8	0353.8	.3	30.0			
	15400	PALE	47	GB	0427.3	0429.8	4.7	62.0			QL=6 ST=2 TYP=5
	200	GORK	41	F	0705.6E	0713.5	15.4D	120.0			
	260	ONDR	8	S	0834.6	0834.6	.1	6.0			
	260	ONDR	40	F	1253.4	1254.3	8.0	5.0	3.0		
	33	UPIC	45	C	1253.6	1254.5	3.0				
	29	UPIC	45	C	1254.0	1255.9	2.5				
	2800	OTTA	1	S	1602.0	1605.5	9.0	3.4	1.6		
	9400	HUAN	20	GRF	1824.0	1837.6	22.2	5.2	3.3		0
02	245	LEAR	43	NS	2321.0	2346.5	594.0D	28.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2321.0	2346.5	3999.0D	28.0			QL=6 ST=2 TYP=1
	100	HIRA	45	C	0233.7	0234.6	2.8	46.0	14.0		WL
	2000	TYKW	5	S	0248.0	0248.4	1.0	10.0	4.0		
	2000	TYKW	29	PBI	0249.0		10.0	1.5	.5		
	3750	TYKW	20	GRF	0430.0	0540.0	150.0	2.0	1.0		
	930	BORD	8	S	0714.3	0714.4	.2	19.0	1.0		
03	33	UPIC	43	NS	0900.2		324.1				
	29	UPIC	43	NS	0900.2		324.0				
	8800	MANI	20	GRF	0345.0	0347.0	4.3	71.0			QL=6 ST=2 TYP=2
	4995	MANI	20	GRF	0345.5	0347.0	3.3	80.0			QL=6 ST=2 TYP=2
	2695	MANI	47	GB	0346.0	0347.0	5.1	89.0			QL=6 ST=2 TYP=5
	1415	MANI	47	GB	0346.1	0346.8	2.7	58.0			QL=6 ST=2 TYP=5
	9395	PEKG	45	C	0441.0	0445.8					
	9395	PEKG			0441.0	0446.5	19.0	319.0	14.2		
	1000	TYKW	5	S	0722.4	0722.7	.8	4.0	1.0		
	2000	TYKW	5	S	0722.4	0722.7	2.5	2.5	1.0		
	3750	TYKW	5	S	0722.4	0723.0	3.5	2.0	.7		
	2840	PEKG	45	C	0740.0	0746.6	49.0	120.0	58.0		
	6100	KISV	28	PRE	0741.3	0745.3	4.0	4.0			
	2000	TYKW	45	C	0745.0	0746.3	4.0	14.0	6.0		
	3750	TYKW	45	C	0745.0	0746.5	4.0	66.0	18.0		
	9500	POTS	4	S/F	0745.0	0746.4	3.2	31.0			
	3000	POTS	29	PBI	0745.0	0746.4	5.0	67.0			
	9395	PEKG	3	S	0745.0	0746.6	3.0	28.0	10.8		
	2650	DWIN	4	S/F	0745.0	0747.0	3.0	80.0	30.0		
	6100	KISV			0745.2	0745.2		26.0			
	6100	KISV	45	C	0745.3	0746.2	3.0	29.0			
	4995	ATHN	4	S/F	0745.3	0746.3	4.8	39.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0745.3	0746.5	2.0	31.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0745.3	0746.5	3.7	30.0			QL=6 ST=2 TYP=3
	8400	BERN	3	S	0745.3	0746.6	2.0	42.0			
	11800	BERN	3	S	0745.3	0746.6	2.0	32.0			
	4995	LEAR	4	S/F	0745.5	0746.1	3.1	46.0			QL=6 ST=2 TYP=3
	2950	GORK	46	C	0745.5	0746.1	2.3	425.0			
	9100	GORK	45	C	0745.5	0746.2	1.9	45.0			
	2950	GORK			0745.5	0746.5		64.0			
	9400	TYKW	45	C	0745.5	0746.6	2.5	37.0	14.0		
	9100	GORK			0745.5	0746.6		36.0			
	2950	GORK	29	PBI	0745.5	0747.8	32.0	11.6			
	1415	LEAR	47	GB	0745.6	0746.1	2.4	110.0			QL=6 ST=2 TYP=5
	1470	POTS	4	S/F	0745.6	0746.5	9.4	49.0			
	2695	LEAR	47	GB	0745.6	0746.6	3.5	74.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0745.6	0746.6	4.5	21.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0745.6	0747.6	2.4	49.0			QL=6 ST=2 TYP=3
	1000	TYKW	45	C	0746.0	0747.3	3.0	6.0	1.0		
	15400	LEAR	8	S	0746.0	0746.6	1.5	33.0			QL=6 ST=2 TYP=3
	9100	GORK	29	PBI	0747.4	0747.4	30.6	15.0			
	9400	TYKW	29	PBI	0748.0		35.0	4.0	2.0		
	6100	KISV	29	PBI	0748.3	0748.3	13.0	5.0			
	3750	TYKW	29	PBI	0749.0		50.0	5.0	2.0		
	2000	TYKW	29	PBI	0749.0		4.0	3.0	1.0		
	1470	POTS	1	S	1242.0	1242.3	3.5	1.0			
	6100	KISV	2	S/F	1242.5	1243.8	4.0	7.0			
	2800	OTTA	21	GRF	1243.0	1247.0	60.0	3.6	1.6		
	9500	POTS	1	S	1243.1	1243.1	2.2	6.5			
	3000	POTS	1	S	1243.1	1244.5	3.0	5.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	2800	OTTA	1	S	1243.7	1244.5	2.0	2.2	1.3		
	2650	DWIN	1	S	1740.0	1742.0	3.0	28.0	10.0		
	9400	HUAN	2	S/F	1740.5	1741.0	2.6	24.4	11.4		0
	2800	OTTA	4	S/F	1740.7	1741.9	5.3	31.0	14.0		
	4995	SGMR	8	S	1740.8	1741.1	.5	24.0			QL=6 ST=2 TYP=3
	930	BORD	8	S	1741.2	1741.2	.2	26.0	1.0		
	2695	SGMR	8	S	1741.6	1741.8	.2	37.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	1743.1	1743.1	61.1	4.4	1.5		0
	2800	OTTA	29	PBI	1746.0	1746.0	40.0	4.6	2.2		
	500	HIRA	8	S	2128.5	2128.6	.6	20.0	12.0		0
	610	SGMR	8	S	2128.6	2128.6	.2	36.0			QL=6 ST=2 TYP=3
04	650	GORK	23	GRF	0439.9		21.3	3.0			
	2950	GORK	46	C	0439.9	0450.8	17.6	104.0			
	2950	GORK			0439.9	0452.1		109.0			
	2950	GORK			0439.9	0456.5		89.0			
	2000	TYKW	45	C	0440.0	0443.7	35.0	54.0	10.0		
	1000	TYKW	45	C	0440.0	0451.1	40.0	73.0	7.0		
	3750	TYKW	45	C	0440.0	0452.1	40.0	244.0	48.0		
	950	GORK	46	C	0440.0	0440.5	37.6	46.0			
	4995	LEAR	47	GB	0440.0	0440.8	12.0	16.0			QL=6 ST=2 TYP=5
	2840	PEKG			0440.0	0443.0					
	6100	KISV			0440.0E	0444.2		167.0			
	9100	GORK	46	C	0440.0	0450.7	17.3	330.0			
	6100	KISV			0440.0E	0450.7		195.0			
	950	GORK			0440.0	0451.1		46.0			
	9100	GORK			0440.0	0452.0		410.0			
	9395	PEKG	45	C	0440.0	0452.1	18.0	126.0	51.0		
	2840	PEKG			0440.0	0452.1					
	2695	ATHN	47	GB	0440.0	0452.5	33.8	76.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	0440.0	0452.5	33.8	330.0			QL=6 ST=2 TYP=5
	8800	ATHN	47	GB	0440.0	0452.5	33.8	300.0			QL=6 ST=2 TYP=5
	6100	KISV	46	C	0440.0E	0452.7	13.5D	226.0			
	2840	PEKG	46	C	0440.0	0454.5	28.0	113.0	48.0		
	2695	LEAR	47	GB	0440.1	0440.8	23.2	10.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0440.1	0443.6	22.7	23.0			QL=6 ST=2 TYP=5
	2695	MANI	47	GB	0440.1	0451.6	21.2	91.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0440.3	0440.8	24.7	8.0			QL=6 ST=2 TYP=5
	4995	MANI	49	GB	0440.5	0452.1	20.0	500.0			QL=6 ST=2 TYP=6
	17000	NOBE	7	C	0440.9	0452.1	17.0	266.0			0
	8800	MANI	47	GB	0441.6	0452.3	16.5	440.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	0442.1	0442.6	12.2	18.0			QL=6 ST=2 TYP=5
	1415	ATHN	47	GB	0442.3	0443.6	31.5	59.0			QL=6 ST=2 TYP=5
	9400	TYKW	45	C	0442.5	0452.1	32.5	385.0	75.0		
	1415	LEAR	47	GB	0442.6	0443.6	13.4	90.0			QL=6 ST=2 TYP=5
	500	HIRA	45	C	0443.0	0451.0	16.3	30.0	8.0		WR
	35000	NAGO	20	GRF	0443.0	0452.0	9.0	70.0			
	410	LEAR	47	GB	0444.1	0445.6	15.4	28.0			QL=6 ST=2 TYP=5
	650	GORK	4	S/F	0444.2	0444.8	3.8	8.0			
	245	LEAR	47	GB	0444.3	0446.8	15.7	11.0			QL=6 ST=2 TYP=5
	200	HIRA	46	C	0444.5	0454.1	26.0	220.0	16.0		0
	200	GORK	4	S/F	0445.4	0454.4	15.9	140.0D			
	650	GORK	4	S/F	0448.0	0450.7	6.8	44.0			
	100	HIRA	46	C	0448.3	0448.6	3.6	3100.0	850.0		WL
	100	GORK	4	S/F	0448.4	0450.6	3.5	230.0			
	6100	KISV	29	PBI	0453.5	0459.5	50.0U	27.0			
	650	GORK	2	S/F	0457.0	0458.0	2.6	3.5			
	17000	NOBE	29	PBI	0457.1	0457.9	18.0	59.0			0
	9100	GORK	29	PBI	0457.3	0457.3	132.0	72.0			
	9395	PEKG	29	PBI	0458.0		44.0	20.0	9.0		
	2840	PEKG	29	PBI	0508.0		34.0	26.0	9.2		
	2000	TYKW	29	PBI	0515.0		45.0	4.0	1.0		
	9400	TYKW	29	PBI	0515.0		60.0	16.0	6.0		
	2950	GORK	29	PBI	0515.0	0515.0	126.0	15.0			
	3750	TYKW	29	PBI	0520.0		70.0	7.0	3.0		
	245	LEAR	47	GB	0839.1	0839.1	.2	70.0			QL=6 ST=2 TYP=5
	260	ONDR	8	S	0839.2	0839.3	.3	28.0			
	2800	OTTA	240	R	1840.0	1950.0	70.0	3.4			
	3750	TYKW	5	S	2329.0	2331.2	10.0	1.5	.5		
05	245	LEAR	8	S	0219.3	0220.3	2.0	10.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
05	650	GORK	21	GRF	0315.0E	0355.9	225.0D	5.0			
	650	GORK	40	F	0415.1	0415.6	12.1	19.0			
	650	GORK	4	S/F	0438.6	0439.0	.7	58.0	15.0		
	650	GORK	4	S/F	0535.5	0535.7	.5	11.0	4.0		
	245	LEAR	8	S	0643.3	0643.3	.2	23.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0643.3	0643.3	.2	4.0			QL=6 ST=2 TYP=3
	33	UPIC	8	S	0643.4	0643.4	.4				
	260	ONDR	8	S	0643.4	0643.5	.2	18.0			
	950	GORK	2	S/F	0648.0	0648.4	.5	14.0			
	650	GORK	4	S/F	0739.4	0739.9	1.1	9.5	4.5		
	930	BORD	41	F	0941.5	0941.8	.4	16.0	1.0		
	650	GORK	4	S/F	1026.4	1026.6	1.9	12.0	2.0		
	33	UPIC	42	SER	1350.5	1513.1U	83.9				
	260	ONDR	4	S/F	1354.6	1354.9	1.7	11.0	10.0		
	2800	OTTA	1	S	1642.0	1643.0	5.0	2.0	1.0		
	100	HIRA	45	C	2045.2	2045.5	.9	3050.0	340.0		WL
	245	SGMR	8	S	2335.6	2335.8	1.4	200.0			QL=6 ST=2 TYP=3
06	33	UPIC	43	NS	0826.0		526.6				
	950	GORK	4	S/F	0522.2	0522.3	.6	57.0			
	260	ONDR	8	S	0628.8	0628.9	.1	11.0			
	3100	CRIM	45	C	0721.0	0721.5	3.0	6.0			
	3100	CRIM			0721.0	0723.5		7.0	2.0		
	930	BORD	41	F	1132.5	1132.6	1.3	12.0	2.0		
	2800	OTTA	240	R	2055.0	2110.0	15.0	2.8	1.4		
	410	LEAR	8	S	2328.3	2328.5	.3	7.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2328.3	2328.5	.3	169.0			QL=6 ST=2 TYP=5
07	245	LEAR	8	S	0044.3	0044.5	.3	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0057.1	0058.6	1.9	6.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0058.3	0058.6	.7	139.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0132.1	0132.3	.2	25.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	0148.0	0151.0	120.0	6.0	2.0		
	2000	TYKW	21	GRF	0148.0	0151.0	95.0	5.0	1.5		
	9400	TYKW	20	GRF	0148.0	0155.0	85.0	4.0	2.0		RAIN
	2695	PENT			0148.0	0151.0		6.2			
	1000	TYKW	42	SER	0148.8	0152.2	4.0	4.0	1.0		
	500	HIRA	8	S	0301.1	0301.2	.3	800.0			WL
	410	LEAR	47	GB	0301.1	0301.3	.4	260.0			QL=6 ST=2 TYP=5
	2000	TYKW	5	S	0301.2	0301.4	.5	1.5	.5		
	1000	TYKW	45	C	0406.4	0406.7	.5	3.0	.5		
	2000	TYKW	21	GRF	0407.0	0445.0	135.0	4.0	2.0		
	3750	TYKW	21	GRF	0407.0	0445.0	130.0	7.0	4.0		
	2840	PEKG	45	C	0407.0	0416.3	20.0	18.5	5.7		
	1000	TYKW	42	SER	0407.8	0408.9	2.0	5.0	.7		
	3750	TYKW	45	C	0408.0	0408.3	2.0	16.0	6.0		
	9400	TYKW	45	C	0408.0	0408.4	2.0	11.0	2.5		
	2000	TYKW	45	C	0408.0	0408.5	3.0	12.0	3.0		
	9400	TYKW	21	GRF	0408.0	0445.0	140.0	6.0	3.0		
	8800	LEAR	8	S	0408.0	0408.1	1.8	13.0			QL=6 ST=2 TYP=3
	6100	KISV	2	S/F	0408.0	0408.3	1.5	11.0			
	2695	ATHN	8	S	0408.0	0408.3	2.0	13.0			QL=5 ST=2 TYP=3
	2695	LEAR	8	S	0408.1	0408.3	1.7	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0408.1	0408.3	1.7	16.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0408.1	0408.3	1.9	11.0			QL=5 ST=2 TYP=3
	9100	GORK	1	S	0408.1	0408.3	.4	8.6			
	2950	GORK	1	S	0408.2	0408.6	1.5	11.0			
	1415	ATHN	8	S	0408.6	0409.3	1.9	16.0			QL=5 ST=2 TYP=3
	3750	TYKW	29	PBI	0410.0		3.0	1.5	.5		
	9400	TYKW	29	PBI	0410.0		3.0	2.0	1.0		
	1000	TYKW	21	GRF	0414.0	0445.0	80.0	1.5	.7		
	4995	LEAR	4	S/F	0414.1	0416.1	4.2	10.0			QL=6 ST=2 TYP=3
	3750	TYKW	45	C	0414.5	0416.2	5.0	36.0	4.0		
	2000	TYKW	45	C	0414.5	0416.5	6.0	11.0	3.0		
	1000	TYKW	45	C	0414.5	0416.7	6.0	25.0	3.5		
	2695	ATHN	4	S/F	0414.6	0416.1	5.7	15.0			QL=5 ST=2 TYP=3
	1415	LEAR	4	S/F	0414.6	0416.8	3.9	22.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0415.0	0416.3	4.0	3.0	1.0		
	2950	GORK	3	S	0415.0	0416.2	4.2	16.0			
	8800	LEAR	4	S/F	0415.0	0456.1	41.1D	6.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
07	610	LEAR	4	S/F	0415.1	0415.8	3.4	19.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0415.3	0416.1	2.3	4.0			QL=5 ST=2 TYP=3
	1415	ATHN	4	S/F	0415.3	0416.5	4.2	9.0			QL=5 ST=2 TYP=3
	950	GORK	2	S/F	0415.4	0416.9	3.4	15.0			
	2695	LEAR	4	S/F	0415.8	0416.1	3.2	20.0			QL=6 ST=2 TYP=3
	950	GORK	3	S	0438.8	0439.1	.4	33.0			
	950	GORK	1	S	0535.6	0535.8	.5	14.0			
	260	ONDR	8	S	0820.7	0820.8	.1	7.0			
	29	UPIC	46	C	1117.5	1119.0	5.5				
	33	UPIC	46	C	1117.6	1118.5U	5.2				
	2800	OTTA	240	R	1310.0	1335.0	25.0	2.6	1.3		
	2800	OTTA	20	GRF	1425.0	1640.0	200.0	4.0	2.2		
	2800	OTTA	240	R	1840.0	2230.0	230.0	11.8	6.0		
	9400	HUAN	1	S	1958.6	2001.8	5.1	9.4	7.5		0
	9400	HUAN	2	S/F	2007.6	2008.7	2.3	24.4	13.1		0
	8800	PALE	8	S	2008.5	2008.8	1.6	24.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2008.5	2008.8	.6	22.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	2008.5	2009.0	.6	32.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2008.6	2008.8	1.5	36.0			QL=6 ST=2 TYP=3
	3750	TYKW	21	GRF	2200.0	2310.0	270.0	4.0	2.0		
	2000	TYKW	21	GRF	2200.0	2310.0	230.0	3.0	1.5		
	9400	TYKW	20	GRF	2230.0	2310.0	90.0	4.0	2.0		
	1000	TYKW	20	GRF	2240.0	2320.0	200.0	1.5	.7		
	3750	TYKW	21	GRF	2340.0	2355.0	65.0	2.0	1.0		
	2000	TYKW	20	GRF	2340.0	2355.0	80.0	2.0	1.0		
08	29	UPIC	43	NS	0659.5		690.5D				
	33	UPIC	43	NS	0700.7		689.3D				
	245	LEAR	43	NS	2325.6	2325.6	134.4	23.0			QL=6 ST=2 TYP=1
	3750	TYKW	45	C	0020.0	0024.1	20.0	3.0	1.0		
	9400	TYKW	5	S	0023.9	0024.1	.7	5.0	1.5		
	3750	TYKW	20	GRF	0115.0	0120.6	40.0	6.0	2.5		
	2695	PENT	4	S/F	0116.0	0118.2	5.0	23.0	7.6		
	9400	TYKW	21	GRF	0117.0	0124.0	60.0	6.0	2.5		
	4995	LEAR	4	S/F	0118.6	0120.8	3.4	8.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0119.5	0120.4	3.0	9.0	3.0		
	8800	LEAR	8	S	0120.3	0120.6	1.7	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0306.8	0307.0	.3	23.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0306.8	0307.1	.3	13.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0307.0E	0307.0U	1.5D	17.0D	4.0D		
	3750	TYKW	5	S	0307.0	0307.2	2.0	2.0	.5		
	8800	LEAR	4	S/F	0309.1	0311.1	5.0	19.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0309.3	0311.1	4.8	9.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	0309.5	0311.1	5.0	10.0	4.0		
	3750	TYKW	5	S	0309.5	0311.2	20.0	3.0	1.0		
	9400	TYKW	21	GRF	0412.0	0426.0	105.0	5.0	2.0		
	650	GORK	8	S	0415.0	0415.5	.6	55.0	27.0		
	950	GORK	2	S/F	0415.1	0415.5	.8	41.0			
	2000	TYKW	21	GRF	0420.0	0450.0	100.0	2.5	1.0		
	3750	TYKW	21	GRF	0433.0	0450.0	80.0	3.0	1.5		
	2840	PEKG	45	C	0500.0	0509.0	18.0	30.0	6.6		
	100	HIRA	42	SER	0503.7	0504.0	3.0	1700.0			WL
	2950	GORK	4	S/F	0503.8	0508.8	15.7	18.0			
	2000	TYKW	45	C	0504.0	0508.5	10.0	63.0	6.0		
	1000	TYKW	45	C	0505.0	0508.5	10.0	30.0	7.0		
	3750	TYKW	45	C	0505.0	0508.6	10.0	14.0	3.0		
	9400	TYKW	21	GRF	0505.0	0522.0	45.0	5.0	3.0		
	500	HIRA	45	C	0505.3	0508.7	11.3	13.0	6.0		WR
	9400	TYKW	45	C	0505.5	0508.6	6.0	8.0	3.0U		RAIN
	9100	GORK	41	F	0505.8	0506.2	4.6	5.0			
	9100	GORK			0505.8	0507.0		4.5			
	9100	GORK			0505.8	0508.4		6.2			
	650	GORK	2	S/F	0506.0	0508.8	4.7	11.0	5.5		
	2950	GORK	4	S/F	0506.0	0509.2	7.5	24.0			
	650	GORK	29	PBI	0506.0	0510.7	4.7U	7.0	3.5		
	1415	LEAR	47	GB	0506.8	0508.3	6.0	59.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	0506.8	0508.5	5.0	20.0			QL=6 ST=2 TYP=3
	610	LEAR	4	S/F	0507.1	0508.8	4.5	21.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0507.6	0509.0	4.2	13.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0508.8	0512.1	3.5	100.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	200	HIRA	42	SER	0510.6	0511.1	2.0	430.0			WL
	2000	TYKW	30	PBI	0514.0		25.0	2.0	1.0		
	1000	TYKW	29	PBI	0515.0		20.0	2.0	.7		
	3750	TYKW	5	S	0518.0	0520.0	10.0	1.5	.7		
	2000	TYKW	42	SER	0519.5	0520.6	3.5	24.0	1.0		
	500	HIRA	8	S	0543.6	0543.6	.3	250.0			0
	2000	TYKW	28	PRE	0610.0	0642.2	35.0	7.0	1.5		
	3750	TYKW	28	PRE	0615.0	0642.8	30.0	19.0	4.0		
	536	ONDR	8	S	0621.3	0621.4	.3	3.0			
	9400	TYKW	28	PRE	0625.0	0642.1	20.0	36.0	9.0		
	410	LEAR	8	S	0635.8	0636.0	.3	48.0			QL=6 ST=2 TYP=3
	536	ONDR	8	S	0636.2	0636.3	.1	8.0			
	15000	KISV	28	PRE	0636.5	0641.7	7.0	18.0			
	6100	KISV	28	PRE	0637.0	0641.8	7.0	22.0			
	2840	PEKG	3	S	0638.0	0648.0	18.0	337.0	128.0		
	9100	GORK	21	GRF	0639.0	0659.2	96.0	54.0			
	2950	GORK	3	S	0639.6	0648.5	11.5	217.0			
	11800	BERN	47	GB	0640.0	0647.8	100.0	1247.0			
	8400	BERN	47	GB	0640.0	0648.3	100.0	1275.0			
	8800	LEAR	49	GB	0640.3	0647.8	25.7	1100.0			QL=6 ST=2 TYP=6
	4995	LEAR	49	GB	0640.6	0648.1	22.0	500.0			QL=6 ST=2 TYP=6
	8800	MANI	49	GB	0641.0	0649.5	17.0	1100.0			QL=6 ST=2 TYP=6
	4995	MANI	49	GB	0641.0	0649.5	18.0	750.0			QL=6 ST=2 TYP=6
	2695	MANI	47	GB	0642.3	0649.6	15.7	200.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	0643.1	0647.8	19.5	219.0			QL=6 ST=2 TYP=5
	15000	KISV	47	GB	0644.0	0648.0	9.0	880.0			
	17000	NOBE	46	C	0644.2	0647.8	11.0	1230.0			L
	6100	KISV	47	GB	0644.3	0648.3	7.5	600.0			
	9400	TYKW	47	GB	0645.0	0647.8	11.0	1260.0	270.0		RAIN
	3750	TYKW	45	C	0645.0	0648.0	12.0	330.0	90.0		
	2000	TYKW	45	C	0645.0	0648.5	15.0	78.0	25.0		
	1000	TYKW	21	GRF	0645.0	0800.0	150.0D	5.0	3.0D		
	3000	POTS	29	PBI	0645.0E		95.0D				
	9500	POTS	29	PBI	0645.0E	0645.8	100.0D	1065.0			
	19600	BERN	47	GB	0645.3	0647.8	100.0	772.0			
	35000	BERN	47	GB	0645.3	0647.8	100.0U	425.0			
	15400	LEAR	49	GB	0645.6	0647.8	20.4	1100.0			QL=6 ST=2 TYP=6
	9100	GORK	47	GB	0645.7	0647.7	8.4	1318.0			
	35000	NAGO	5	S	0647.0	0647.0	3.0	180.0			
	9395	PEKG	47	GB	0647.0	0648.0	7.0	1236.0	602.0		
	1415	LEAR	4	S/F	0647.8	0648.3	6.0	13.0			QL=6 ST=2 TYP=3
	2950	GORK	30	PBI	0651.1	0651.2	90.0	45.0			
	6100	KISV	29	PBI	0651.8	0652.0	85.0	155.0			
	15000	KISV	29	PBI	0653.0	0653.0	80.0U	65.0			
	17000	NOBE	29	PBI	0655.2	0655.2	44.0	84.0			0
	9400	TYKW	30	PBI	0656.0		140.0D	55.0U	25.0D		
	2840	PEKG	29	PBI	0656.0		177.0	3.0	.5		
	536	ONDR	8	S	0656.4	0656.4	.1	5.0			
	3750	TYKW	30	PBI	0657.0		90.0	25.0	11.0		
	410	LEAR	8	S	0657.1	0657.3	.4	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0657.1	0657.3	.4	11.0			QL=6 ST=2 TYP=3
	2000	TYKW	30	PBI	0700.0		140.0D	11.0	7.0D		
	1000	TYKW	5	S	0701.3	0701.6	1.0	3.0	1.0		
	260	ONDR	41	F	0703.8	0706.5	6.9	4.0			
	930	BORD	8	S	0709.4	0709.8	.6	52.0	3.0		
	6100	KISV	2	S/F	0724.9	0725.8	2.0	5.0			
	2000	TYKW	45	C	0725.0	0726.5	2.5	6.0	1.5		
	930	BORD	46	C	0732.0	0737.5	131.0	670.0	100.0		
	930	BORD			0732.0	0844.7		442.0			
	3750	TYKW	45	C	0736.0	0736.6	2.0	9.0	3.0		
	1000	TYKW	45	C	0736.0	0736.7	2.0	15.0	4.0		
	2000	TYKW	45	C	0736.0	0736.8	2.0	14.0	4.0		
	1470	POTS			0736.0	0736.5	2.0	10.0			
	3000	POTS	4	S/F	0736.0	0736.5	2.0	27.0			
	950	GORK	2	S/F	0736.0	0736.8	1.8	12.0			
	6100	KISV	2	S/F	0736.0	0736.9	1.5	4.0			
	1415	LEAR	8	S	0736.1	0736.3	1.4	11.0			QL=6 ST=2 TYP=3
	650	GORK	2	S/F	0736.2	0736.8	2.4	6.0	3.0		
	2950	GORK	2	S/F	0736.2	0736.8	1.7	13.3			
	2695	LEAR	4	S/F	0736.6	0736.6	195.0	13.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	2650	DWIN	45	C	0740.0	0748.0	20.0	180.0	50.0		
	9100	GORK	1	S	0825.2	0825.7	2.0	10.0	5.0		
	2650	DWIN	1	S	0836.0	0837.0	1.0	18.0	5.0		
	2950	GORK	21	GRF	0836.0	1010.3	210.0D	9.5			
	9400	TYKW	5	S	0838.0	0845.0U	25.0D	40.0U	4.0D		
	3750	TYKW	5	S	0840.0	0852.0U	20.0D	8.0U	3.0D		
	2000	TYKW	5	S	0849.0	0852.0U	10.0U	7.0U	2.0U		
	1000	TYKW	45	C	0853.0	0853.6	1.5	28.0	6.0		
	9100	GORK	21	GRF	0905.2	1000.0	64.7	7.8			
	113	POTS	4	S/F	0905.9	0906.0	3.0	100.0	15.0		
	500	HIRA	42	SER	0907.3	0907.7	2.0	450.0			0
	536	ONDR	41	F	0907.6	0908.2	2.4	36.0	35.0		
	6100	KISV	28	PRE	0927.0	0952.4	27.0	7.0			
	536	ONDR	40	F	0951.7	0952.6	9.7	78.0			
	3000	POTS	40	F	0952.0	0956.4	20.0	46.0			
	950	GORK	41	F	0952.1	0952.2	9.1	29.0			
	950	GORK			0952.1	0957.1		12.0			
	950	GORK			0952.1	0959.4		13.0			
	2950	GORK	46	C	0952.2	0956.2	9.1	43.0			
	2950	GORK			0952.2	0959.5		43.0			
	650	GORK	46	C	0952.3	0956.4U	10.3	90.0D			
	650	GORK			0952.3	0959.0		90.0			
	9500	POTS	22	GRF	0953.0	0956.9	19.0	20.0			
	2650	DWIN	2	S/F	0953.0	0958.0	8.0	40.0	20.0		
	4995	ATHN	4	S/F	0953.6	0957.1	7.4	19.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0953.6	0959.5	7.4	34.0			QL=6 ST=2 TYP=3
	6100	KISV			0953.9	0954.3		17.0			
	6100	KISV	46	C	0953.9	0957.1	6.0	26.0			
	6100	KISV			0953.9	0959.3		13.0			
	9100	GORK	40	F	0954.0	0957.0	3.5	26.0			
	1470	POTS	22	GRF	0954.0	0957.1	18.0	13.0			
	1415	ATHN	4	S/F	0954.1	0957.1	6.9	18.0			QL=6 ST=2 TYP=3
	6100	KISV	29	PBI	0959.5	0959.7	15.0	8.0			
	536	ONDR	8	S	1025.9	1026.0	.1	8.0			
	9100	GORK	20	GRF	1033.7	1034.7	10.3	11.7			
	930	BORD	45	C	1046.0	1046.7	4.0	47.0	5.0		
	234	POTS	4	S/F	1103.8	1103.9	.2	330.0	50.0		III
	204	IZMI	5	S	1103.8	1104.0	.7	860.0	240.0		
	260	ONDR	8	S	1103.9	1103.9	.2	11.0			
	3000	POTS	23	GRF	1135.0	1210.5	50.0	13.0			
	9500	POTS	23	GRF	1140.0	1155.9	35.0	20.0			
	2800	OTTA	40	F	1146.0	1156.0	14.0	4.4			
	6100	KISV	2	S/F	1152.0	1156.0	8.0	14.0			
	2950	GORK	2	S/F	1152.2	1156.0	4.2	4.0			
	9100	GORK	21	GRF	1152.4	1155.1	7.7	9.2			
	113	POTS	42	SER	1152.5	1211.5	19.0	1200.0	20.0		III
	9100	GORK	1	S	1155.5	1155.9	.9	13.2			
	4995	SGMR	8	S	1155.6	1155.8	.5	20.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1155.6	1155.8	.4	23.0			QL=6 ST=2 TYP=3
	650	GORK	4	S/F	1201.6	1201.7	.8	78.0			
	950	GORK	4	S/F	1201.6	1201.7	.7	83.0			
	6100	KISV	2	S/F	1206.5	1210.8	12.0	7.0			
	2800	OTTA	22	GRF	1207.0	1211.5	19.0	7.8	2.6		
	234	POTS	4	S/F	1209.7	1210.0	1.8	900.0	60.0		III
	245	SGMR	47	GB	1209.8	1210.0	.5	490.0			QL=6 ST=3 TYP=5
	260	ONDR	4	S/F	1209.8	1210.6	2.6	104.0			
	113	POTS	4	S/F	1324.8	1325.0	.2	250.0	50.0		III
	35000	BERN	3	S	1425.0	1427.3	2.3D	58.0			
	11800	BERN	3	S	1425.0	1427.3	2.3D	108.0			
	19600	BERN	3	S	1425.0	1427.3	2.3D	80.0			
	8400	BERN	3	S	1425.0	1427.3	2.3D	129.0			
	1415	ATHN	4	S/F	1426.5	1427.3	6.5	28.0			QL=6 ST=2 TYP=3
	4995	ATHN	47	GB	1426.6	1427.3	6.4	52.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	1426.6	1427.3	6.4	19.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1426.6	1427.3	6.4	90.0			QL=6 ST=2 TYP=5
	9400	HUAN	3	S	1426.7	1427.2	1.9	111.7	31.1		R
	3000	POTS	29	PBI	1426.7	1427.3	8.3	22.0			
	2695	SGMR	47	GB	1426.8	1427.1	.5	38.0			QL=6 ST=2 TYP=5
	2800	OTTA	4	S/F	1426.9	1427.2	3.1	27.6	7.8		
	2650	DWIN	1	S	1427.0	1427.0	3.0	22.0	10.0		

SOLAR RADIO EMISSION
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JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	9500	POTS	4	S/F	1427.0	1427.1	3.0	74.0			
	1470	POTS	29	PBI	1427.0	1427.4	.6	24.0			
	4995	SGMR	8	S	1427.1	1427.3	.2	49.0			QL=6 ST=2 TYP=3
	113	POTS	42	SER	1427.1	1427.3	.4	3500.0	35.0		III
	15400	SGMR	47	GB	1427.1	1427.3	.2	97.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1427.1	1427.3	.2	58.0			QL=6 ST=2 TYP=5
	610	SGMR	4	S/F	1427.1	1427.6	6.2	39.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1427.3	1427.6	.3	32.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1427.3	1427.6	1.5	19.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1427.5	1428.0	.5D	13.0			QL=6 ST=2 TYP=3
	2800	OTTA	30	PBI	1430.0	1430.0	35.0	4.0	2.0		
	2800	OTTA	2	S/F	1432.0	1432.6	2.0	4.0			
	2800	OTTA	32A	ABS	1525.0	1620.0	170.0	-8.0	-4.0		
	2800	OTTA	1	S	1537.2	1537.5	1.0	4.0	1.4		
	1415	ATHN	8	S	1537.3	1537.6	1.5	4.0			QL=5 ST=2 TYP=3
	2695	ATHN	8	S	1537.3	1537.6	1.5	6.0			QL=5 ST=2 TYP=3
	4995	ATHN	8	S	1537.3	1537.6	1.5	1.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	1537.3	1537.6	1.5	9.0			QL=5 ST=2 TYP=3
	9400	HUAN	1	S	1800.5	1801.5	2.5	7.3	4.0		0
	2800	OTTA	8	S	1804.0	1804.4	.6	3.2	.6		
	9400	HUAN	22	GRF	2000.6	2005.0	20.8	6.4	2.6		0
	2800	OTTA	4	S/F	2027.0	2031.5	13.0	24.0	6.0		
	100	HIRA	41	F	2028.6	2029.0	6.0	3000.0			ML
	9400	HUAN	3	S	2030.2	2031.5	4.3	25.6	10.5		0
	2695	SGMR	8	S	2031.0	2031.5	1.3	31.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2031.0	2031.5	.8	24.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2031.0	2031.6	1.3	31.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	2031.1	2031.3	.7	30.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	2031.1	2031.3	.7	28.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2031.1	2031.6	1.7	27.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2031.1	2031.6	1.9	26.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2031.1	2031.8	1.5	19.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2031.1	2031.8	1.9	30.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	2034.5	2034.5	7.9	3.7	3.1		0
	1000	TYKW	45	C	2105.7	2107.1	5.5	24.0	3.0		
	200	HIRA	46	C	2113.0	2117.6	15.7	64.0	11.0		ML
	1000	TYKW	45	C	2114.7	2114.9	.8	154.0	12.0		
	100	HIRA	41	F	2116.0	2126.1	16.0	270.0			ML
	245	PALE	47	GB	2116.1	2117.3	2.9	57.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	2116.1	2117.3	2.0	41.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2127.6	2128.1	1.2	18.0			QL=5 ST=2 TYP=3
	3750	TYKW	21	GRF	2135.0	2200.0	290.0	6.0	3.0		
	9400	TYKW	21	GRF	2220.0U	2337.0U	260.0U	8.0U	4.0U		RAIN
	2695	PENT	21	GRF	2240.0	0025.0	190.0D	22.4			
	2000	TYKW	21	GRF	2245.0	2314.0	210.0	3.0	1.5		
	1000	TYKW	21	GRF	2245.0	2315.0	190.0	2.0	1.0		
	3750	TYKW	20	GRF	2247.0	2254.0	50.0	3.0	1.0		
	15400	PALE	8	S	2320.6	2321.3	1.5	29.0			QL=6 ST=2 TYP=3
	1000	TYKW	45	C	2333.7	2334.1	1.0	7.0	2.0		
	9400	TYKW	5	S	2342.0U	2343.2	4.0D	12.0	5.0		
	3750	TYKW	28	PRE	2347.0	2355.0	27.0	4.0	2.5		
	3750	TYKW	5	S	2359.0	0003.0U	11.0	3.0D	1.5D		
09	29	UPIC	43	NS	0718.3		671.7D				
	33	UPIC	43	NS	0718.4		671.6D				
	260	ONDR	43	NS	0734.8	1046.0U	396.0D	192.0U			
	200	GORK	43	NS	0744.0		252.0D		5.0		
	245	LEAR	43	NS	0827.1	0835.8	9.7	93.0			QL=6 ST=2 TYP=1
	100	GORK	43	NS	0842.0		192.0		10.0		
	127	TORN	44	NS	1050.0E		150.0D		3.0		V2
	245	SGMR	43	NS	1404.0	1457.1	595.0D	280.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1518.0	1701.3	521.0D	130.0			QL=6 ST=2 TYP=1
	245	PALE	44	NS	1636.0E	1831.3		110.0			QL=6 ST=1 TYP=1
	208	VORO	44	NS	2100.0E		360.0D				
	2000	TYKW	5	S	0002.0	0004.0	11.0	2.0	1.0D		
	3750	TYKW	5	S	0008.0	0008.2	1.5	4.0	1.0		
	3750	TYKW	45	C	0014.0	0018.3	6.0	41.0	15.0		
	2000	TYKW	5	S	0015.0	0018.3	5.0	11.0	3.5		
	2695	PALE	4	S/F	0015.8	0018.3	14.0	37.0			QL=6 ST=2 TYP=3
	4995	LEAR	47	GB	0016.1	0018.1	14.0	63.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
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JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	8800	LEAR	47	GB	0016.1	0018.1	14.0	89.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	0016.6	0018.3	3.7	67.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	0016.8	0018.1	13.3	30.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	0017.1	0018.3	24.0	100.0			QL=6 ST=2 TYP=5
	17000	NOBE	1	S	0017.1	0024.0	9.4	34.0			0
	9400	TYKW	45	C	0017.8U	0018.3	1.0U	45.0U	16.0U		RAIN
	15400	LEAR	4	S/F	0017.8	0024.0	12.3	30.0			QL=6 ST=2 TYP=3
	2695	PENT	1	S	0018.0	0018.1	1.2	2.6	1.3		
	9400	TYKW	45	C	0019.5	0023.7	20.5	62.0	27.0		
	3750	TYKW	30	PBI	0020.0		120.0	11.0	6.0		
	2000	TYKW	30	PBI	0020.0		105.0	3.0	1.5		
	3750	TYKW	5	S	0021.0	0023.9	9.0	18.0	10.0		
	2000	TYKW	21	GRF	0022.0	0024.0	70.0	5.0	2.0		
	17000	NOBE	29	PBI	0026.5	0026.5	60.0	18.0			0
	2695	PENT	1	S	0028.6	0029.0	1.5	5.2	2.6		
	3750	TYKW	29	PBI	0030.0		25.0	7.0	2.5		
	2695	PENT	4	S/F	0036.0	0036.8	3.0	15.4	4.6		
	2000	TYKW	5	S	0038.5	0041.0	7.0	1.5	.7		
	9400	TYKW	29	PBI	0040.0		105.0	22.0	8.0		
	2695	PENT	40	F	0108.5	0108.8	1.0	4.6			
	2695	PENT	8	S	0136.2	0136.3	.3	6.6			
	2695	PENT	4	S/F	0137.0	0138.3	6.0	10.8	4.0		
	2000	TYKW	5	S	0144.0	0144.5	1.5	3.0	1.0		
	410	LEAR	47	GB	0144.1	0144.6	.7	79.0			QL=6 ST=2 TYP=5
	2695	PENT	1	S	0144.5	0145.2	1.5	3.6	2.7		
	9400	TYKW	45	C	0228.0	0235.0	10.0	5.0	2.0		
	3750	TYKW	21	GRF	0228.0	0253.0	100.0	3.0	1.5		
	2000	TYKW	5	S	0230.0	0230.8	5.0	2.0	.5		
	2000	TYKW	21	GRF	0230.0	0302.0	98.0	2.0	1.0		
	2000	TYKW	45	C	0241.4	0244.7	9.0	3.0	.7		
	3750	TYKW	45	C	0307.3	0307.4	1.5	4.0	1.0		
	9400	TYKW	21	GRF	0311.0	0329.0	50.0	6.0	2.0		
	9400	TYKW	45	C	0321.8	0323.2	3.0	4.0	1.5		
	15400	PALE	4	S/F	0322.1	0323.1	2.7	30.0			QL=6 ST=2 TYP=3
	2000	TYKW	21	GRF	0325.0	0339.0	50.0	2.0	1.0		
	3750	TYKW	21	GRF	0325.0	0339.0	40.0	3.0	1.5		
	2000	TYKW	5	S	0326.0	0328.5	6.0	3.0	1.0		
	3750	TYKW	45	C	0326.0	0328.9	5.0	5.0	2.0		
	9400	TYKW	5	S	0337.0	0347.0	23.0	5.0	2.5		
	9400	TYKW	5	S	0408.0	0409.9	4.0	5.0	1.5		
	9400	TYKW	21	GRF	0408.0	0415.0	40.0	5.0	2.0		
	3750	TYKW	28	PRE	0412.0	0416.0	14.0	2.5	1.5		
	2000	TYKW	45	C	0423.5	0428.6	9.5	6.0	2.5		
	9400	TYKW	45	C	0426.0	0427.5	7.0	13.0	7.0		
	3750	TYKW	45	C	0426.0	0429.2	5.0	9.0	5.0		
	6100	KISV	20	GRF	0426.0	0427.5	12.0	7.0			
	15000	KISV	20	GRF	0426.0	0427.5	10.0	11.0			
	9100	GORK	22	GRF	0426.2	0427.6	12.0	14.0			
	2950	GORK	1	S	0426.2	0427.8	5.5	5.0			
	17000	NOBE	1	S	0426.3	0427.9	5.0	10.0			0
	15400	LEAR	4	S/F	0426.6	0427.5	6.7	19.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0426.8	0427.5	6.5	13.0			QL=6 ST=2 TYP=3
	3750	TYKW	29	PBI	0431.0		14.0	3.0	2.0		
	2000	TYKW	30	PBI	0433.0		12.0	1.0	.5		
	9400	TYKW	30	PBI	0433.0		12.0	6.0	3.0		
	2000	TYKW	5	S	0438.5	0440.5	4.5	1.0	.3		
	9400	TYKW	45	C	0440.0	0440.9	2.5	5.0	1.5		
	9400	TYKW	21	GRF	0451.0	0458.0	50.0	4.0	2.0		
	3750	TYKW	20	GRF	0452.0	0516.0	45.0	4.0	2.0		
	2000	TYKW	20	GRF	0500.0	0514.0	30.0	1.5	.7		
	2950	GORK	21	GRF	0502.2	0515.0	82.0	4.0			
	9400	TYKW	5	S	0522.0	0528.0	18.0	2.0	1.0		
	9395	PEKG	21	GRF	0541.0	0602.0	45.0D	35.0	12.0		
	6100	KISV	28	PRE	0544.0	0550.6	12.0	4.0			
	3750	TYKW	28	PRE	0545.0	0556.0	11.0	3.0	1.5		
	9400	TYKW	28	PRE	0546.0	0550.4	10.0	12.0	4.0		
	9100	GORK	21	GRF	0547.4	0559.6	34.0	18.0			
	2840	PEKG	3	S	0551.0	0557.5	21.0	295.0	120.0		
	15400	LEAR	47	GB	0551.3	0557.0	13.0	200.0			QL=6 ST=2 TYP=5
	8800	ATHN	47	GB	0555.8	0557.0	5.5	160.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	3750	TYKW	45	C	0556.0	0557.0	4.0	55.0	15.0		
	9400	TYKW	5	S	0556.0	0557.1	5.0	203.0	48.0		
	2000	TYKW	45	C	0556.0	0557.4	3.0	79.0	17.0		
	35000	NAGO	5	S	0556.0	0556.0	3.0	30.0			
	2950	GORK	4	S/F	0556.0	0556.9	2.3	696.0			
	2650	DWIN	45	C	0556.0	0557.0	3.0	430.0	200.0		
	4995	ATHN	47	GB	0556.0	0557.0	5.3	130.0			QL=6 ST=2 TYP=5
	8400	BERN	3	S	0556.0U	0557.0U	5.0U	65.0			ONLY PAPER REC
	6100	KISV	3	S	0556.0	0557.2	3.0	90.0			
	8800	MANI	47	GB	0556.0	0557.3	7.1	30.0			QL=6 ST=2 TYP=5
	2695	ATHN	47	GB	0556.0	0557.3	5.3	410.0			QL=6 ST=2 TYP=5
	4995	MANI	47	GB	0556.0	0557.3	5.3	80.0			QL=6 ST=2 TYP=5
	2695	MANI	49	GB	0556.0	0557.3	3.5	500.0			QL=6 ST=2 TYP=6
	2695	LEAR	47	GB	0556.0	0557.3	4.0	430.0			QL=6 ST=2 TYP=5
	9395	PEKG	3	S	0556.0	0557.3	6.0	160.0	53.0		
	8800	LEAR	47	GB	0556.1	0557.0	8.2	210.0			QL=6 ST=2 TYP=5
	4995	LEAR	47	GB	0556.1	0557.0	5.7	80.0			QL=6 ST=2 TYP=5
	1415	MANI	20	GRF	0556.1	0557.1	1.9	6.0			QL=6 ST=2 TYP=2
	1415	ATHN	4	S/F	0556.3	0557.1	3.3	5.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0556.3	0557.1	1.7	8.0			QL=6 ST=2 TYP=3
	15000	KISV	4	S/F	0556.4	0557.0U	7.5	135.0D			
	9100	GORK	3	S	0556.4	0557.2	3.2	206.0			
	17000	NOBE	4	S/F	0556.5	0557.2	2.0	177.0			R
	17000	NOBE	29	PBI	0558.5	0558.5	3.0	20.0			0
	2000	TYKW	29	PBI	0559.0		13.0	2.0	1.0		
	6100	KISV	29	PBI	0559.0	0559.0	40.0	20.0			
	3750	TYKW	29	PBI	0600.0		15.0	5.0	2.0D		
	9400	TYKW	30	PBI	0601.0		40.0	12.0	5.0		
	9400	TYKW	5	S	0631.7	0632.4	5.0	7.0	2.0		
	9100	GORK	23	GRF	0631.8		333.0				
	2950	GORK	21	GRF	0633.0		333.0D				
	3750	TYKW	28	PRE	0635.0	0732.0	57.0	14.0	6.0		
	9400	TYKW	5	S	0643.4	0644.0	2.0	4.0	1.5		
	200	GORK	4	S/F	0644.6	0645.1	1.2	15.0			
	2000	TYKW	28	PRE	0645.0	0733.0	48.0	9.0	4.0		
	100	GORK	41	F	0653.1	0653.3	8.8	100.0D			
	100	GORK			0653.1	0656.6		50.0			
	100	GORK			0653.1	0701.3		100.0D			
	9400	TYKW	28	PRE	0656.0	0730.8	36.0	39.0	10.0		
	3100	CRIM	3	S	0656.0	0657.5	3.0	220.0	73.0		
	3100	CRIM	28	PRE	0700.0	0733.0	33.0	3.0	1.0		
	3000	POTS	47	GB	0700.0	0737.0U	340.0	1320.0			
	8400	BERN	46	C	0709.0U	0736.0U	300.0U	1100.0D			ONLY PAPER REC
	9500	POTS	47	GB	0710.0	0736.9	330.0	3000.0			
	1470	POTS	47	GB	0710.0	0737.8	350.0	1060.0			
	2000	TYKW	5	S	0713.0	0713.6	3.0	3.0	1.0		
	9400	TYKW	45	C	0713.0	0715.9	11.0	91.0	35.0		
	15000	KISV	46	C	0713.0	0713.9U	7.5	86.0			
	15000	KISV			0713.0	0714.9		69.0			
	15000	KISV			0713.0	0716.0		64.0			
	8800	LEAR	47	GB	0713.1	0716.0	7.2	87.0			QL=6 ST=2 TYP=5
	4995	LEAR	20	GRF	0713.1	0716.6	7.2	13.0			QL=6 ST=2 TYP=2
	6100	KISV			0713.2	0713.9		20.0			
	6100	KISV	46	C	0713.2	0716.1	7.5	30.0			
	6100	KISV			0713.2	0716.8		25.0			
	2695	ATHN	4	S/F	0713.3	0713.6	6.0	10.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0713.3	0713.6	1.5	13.0			QL=6 ST=2 TYP=3
	15400	LEAR	47	GB	0713.3	0713.8	8.5	81.0			QL=6 ST=2 TYP=5
	8800	ATHN	47	GB	0713.3	0716.3	11.3	73.0			QL=6 ST=2 TYP=5
	9100	GORK	46	C	0713.4	0713.8	4.1	78.0			
	9100	GORK			0713.4	0716.0		75.0			
	2950	GORK	3	S	0713.5	0713.6	3.6	8.1			
	17000	NOBE	28	PRE	0713.5	0713.9	21.0	69.0			R
	4995	ATHN	4	S/F	0713.6	0716.6	11.0	16.0			QL=6 ST=2 TYP=3
	200	GORK	8	S	0718.4	0718.5	.7	35.0D			
	100	GORK	8	S	0718.5	0718.6	.7	100.0D			
	113	POTS	4	S/F	0718.5	0718.6	2.7	2100.0	600.0		III
	100	HIRA	8	S	0718.6	0718.7	.3	5600.0			ML
	15000	KISV	28	PRE	0723.0	0724.0	11.0	59.0			
	8800	ATHN	49	GB	0729.3	0737.1	39.2	2399.0			QL=6 ST=2 TYP=6

SOLAR RADIO EMISSION
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JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	4995	ATHN	49	GB	0729.6	0737.3	37.5	6600.0			QL=6 ST=2 TYP=6
	2695	ATHN	49	GB	0729.6	0737.3	34.9	2000.0			QL=6 ST=2 TYP=6
	15400	LEAR	49	GB	0730.5	0730.6	31.6	26.0			QL=6 ST=2 TYP=7
	4995	MANI	49	GB	0731.0	0736.6	13.0	3500.0			QL=6 ST=2 TYP=6
	9100	GORK	47	GB	0731.8	0736.8	35.0	4688.0			
	808	ONDR	47	GB	0731.8	0738.0U	22.0	475.0	204.0U		
	9400	TYKW	47	GB	0732.0	0737.0	32.0	3980.0	260.0		
	3750	TYKW	47	GB	0732.0	0737.3	32.0	2160.0	170.0		
	8800	LEAR	49	GB	0732.0	0732.3	29.3	31.0			QL=6 ST=2 TYP=7
	8800	MANI	49	GB	0732.0	0736.6	11.5	5700.0			QL=6 ST=2 TYP=6
	2840	PEKG	45	C	0732.0	0737.0	22.0	643.0	157.0		
	9395	PEKG	47	GB	0732.0	0737.0	14.0	3364.0	524.0		
	6100	KISV			0732.6	0735.9		900.0			
	4995	LEAR	49	GB	0732.6	0736.8	26.0	3100.0			QL=6 ST=2 TYP=7
	6100	KISV	47	GB	0732.6	0737.0	10.0	1210.0			
	1415	ATHN	49	GB	0732.6	0737.6	31.7	1000.0			QL=6 ST=2 TYP=6
	6100	KISV			0732.6	0740.4		360.0			
	6100	KISV			0732.6	0742.5		230.0			
	2000	TYKW	47	GB	0733.0	0737.3	24.0	1370.0	180.0		
	2950	GORK	47	GB	0733.0	0737.2	12.0	1757.0			
	3100	CRIM	47	GB	0733.0	0737.2	13.0	1580.0	527.0		
	950	GORK	47	GB	0733.0	0737.5	8.0	615.0			
	2650	DWIN	49	GB	0733.0	0738.0U	20.0	500.0D			
	2695	MANI	49	GB	0733.1	0737.0	13.4	2399.0			QL=6 ST=2 TYP=6
	2695	LEAR	49	GB	0733.3	0737.1	25.5	1800.0			QL=6 ST=2 TYP=7
	650	GORK	40	F	0733.8	0738.6	14.5	17.0			
	15000	KISV	47	GB	0734.2	0736.0U	9.0	2020.0D			
	100	GORK	41	F	0734.3	0735.7	17.0	121000.0			
	100	GORK			0734.3	0749.1		570.0			
	127	TORN	47	GB	0734.4	0736.4	7.3	13000.0	6600.0		
	33	UPIC	49	GB	0734.5		36.0				
	113	POTS	46	C	0734.5	0736.0	22.0	8500.0			IV
	234	POTS	46	C	0734.5	0737.0	45.0	21000.0			IV
	17000	NOBE	47	GB	0734.5	0737.0	12.0	3410.0			O-R
	1415	MANI	49	GB	0734.5	0737.1	14.5	1600.0			QL=6 ST=2 TYP=6
	500	HIRA	45	C	0734.5	0737.5	20.0	350.0	140.0		WR
	29	UPIC	49	GB	0734.6		35.6				
	200	GORK	47	GB	0734.6	0736.7	9.4	4400.0D			
	536	ONDR	47	GB	0734.6	0737.4	25.0	209.0	95.0		
	1415	LEAR	49	GB	0734.6	0737.6	26.7	1199.0			QL=6 ST=2 TYP=7
	100	HIRA	48	C	0734.7		21.0	10000.0D	1660.0D		
	200	HIRA	48	C	0734.7	0736.6	34.0	47000.0	573.0		O
	100	HIRA			0734.7	0747.6		1700.0			WL
	204	IZMI	47	GB	0734.8	0737.0	24.0	17500.0	1500.0		
	35000	NAGO	47	GB	0735.0	0735.0	4.0	810.0			
	610	LEAR	49	GB	0735.0	0737.3	26.3	620.0			QL=6 ST=2 TYP=7
	410	LEAR	49	GB	0735.3	0736.6	26.0	620.0			QL=6 ST=2 TYP=7
	245	LEAR	49	GB	0735.3	0737.0	23.5	7300.0			QL=6 ST=2 TYP=7
	610	MANI	47	GB	0735.5	0737.3	9.5	490.0			QL=6 ST=2 TYP=5
	650	GORK	47	GB	0736.4	0737.5	13.4	490.0			
	15000	KISV			0736.7	0737.0U		2020.0D			
	15000	KISV			0738.5	0740.4		410.0			
	35000	NAGO	29	PBI	0739.0	0747.0	30.0D	150.0			SUNSET
	15000	KISV			0742.1	0742.5		160.0			
	6100	KISV	29	PBI	0742.6	0743.5	33.0E	160.0			
	15000	KISV	29	PBI	0743.5	0743.5	36.0E	120.0			
	9395	PEKG	29	PBI	0746.0		27.0	94.0	15.2		
	3100	CRIM	30	PBI	0746.0	0746.0		38.0			
	17000	NOBE	29	PBI	0746.5	0746.5	19.0D	108.0			O
	650	GORK	30	PBI	0748.0	0748.0	257.0D	30.0			
	950	GORK	30	PBI	0751.0	0751.0	255.0D	19.0			
	500	HIRA	30	PBI	0754.5	0754.6	86.0	10.0	6.0		WR
	2000	TYKW	30	PBI	0757.0		22.0	11.0	7.0		
	3750	TYKW	30	PBI	0804.0		15.0	14.0	13.0		
	9400	TYKW	30	PBI	0804.0		15.0	47.0	39.0		
	9395	PEKG	40	F	0811.0	0835.0	24.0U	250.0	42.0		
	6100	KISV	46	C	0816.5	0836.8	126.0	125.0			
	6100	KISV			0816.5	0840.5		119.0			
	6100	KISV			0816.5	0844.7		99.0			
	6100	KISV			0816.5	0857.5		122.0			

SOLAR RADIO EMISSION
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JULY 1982

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	6100	KISV		0816.5	0904.0		91.0			
	6100	KISV		0816.5	0908.6		88.0			
	6100	KISV		0816.5	0911.7		83.0			
	6100	KISV		0816.5	0925.7		78.0			
	8800	ATHN	47 GB	0816.8	0834.3	65.2	230.0			QL=6 ST=2 TYP=5
	3100	CRIM	45 C	0817.0	0838.0	61.0	80.0			
	3100	CRIM		0817.0	0857.6		107.0	38.0		
	2840	PEKG	40 F	0817.0	0858.0	121.0	49.0	22.0		
	3100	CRIM		0817.0	0925.5		78.0			
	1415	ATHN	47 GB	0817.5	0826.5	33.5	169.0			QL=6 ST=2 TYP=5
	9400	TYKW	45 C	0819.0	0834.9	68.0D	255.0	140.0D		
	3750	TYKW	45 C	0819.0	0857.3	70.0D	143.0	70.0D		
	2000	TYKW	45 C	0819.0	0857.5	65.0D	66.0	32.0D		
	15000	KISV		0819.0	0823.3		80.0			
	15000	KISV	46 C	0819.0	0834.9	60.0	131.0			
	15000	KISV		0819.0	0836.8		122.0			
	15000	KISV		0819.0	0839.4		104.0			
	15000	KISV		0819.0	0857.7		111.0			
	2695	ATHN	47 GB	0820.8	0838.3	61.2	63.0			QL=6 ST=2 TYP=5
	2650	DWIN	45 C	0822.0	0858.0	80.0	80.0	50.0		
	8800	LEAR	47 GB	0822.1	0827.8	14.7	96.0			QL=6 ST=2 TYP=5
	4995	LEAR	47 GB	0822.1	0827.8	14.7	63.0			QL=6 ST=2 TYP=5
	9100	GORK	46 C	0823.6	0834.8	24.9	184.0			
	9100	GORK		0823.6	0836.8		178.0			
	9100	GORK		0823.6	0840.6		137.0			
	15400	LEAR	47 GB	0824.6	0827.8	12.2	44.0			QL=6 ST=2 TYP=5
	2695	LEAR	47 GB	0824.8	0828.1	12.0	27.0			QL=6 ST=2 TYP=5
	1415	LEAR	47 GB	0825.0	0826.1	11.8	180.0			QL=6 ST=2 TYP=5
	950	GORK	46 C	0825.2	0839.1	21.0	57.0			
	950	GORK		0825.2	0842.4		150.0			
	950	GORK	46 C	0825.2	0844.6		280.0			
	536	ONDR	41 F	0832.4	0926.3	74.0	35.0			
	808	ONDR	41 F	0833.0	0844.8	17.0	251.0	53.0		
	200	GORK	4 S/F	0835.0	0837.9	6.0	30.0			
	204	IZMI	25 R	0835.0	0857.8	63.7	62.0	46.0		
	234	POTS	27 RF	0835.0	0858.0	87.0	55.0	10.0		RISE+I
	113	POTS	27 RF	0836.0	0926.5	114.0	90.0	30.0		RISE+I
	2695	LEAR	47 GB	0836.8	0838.3	31.2	70.0			QL=6 ST=2 TYP=5
	8800	LEAR	47 GB	0836.8	0839.3	31.2	169.0			QL=6 ST=2 TYP=5
	4995	LEAR	47 GB	0836.8	0840.6	31.2	119.0			QL=6 ST=2 TYP=5
	15400	LEAR	47 GB	0836.8	0856.6	31.2	67.0			QL=6 ST=2 TYP=5
	1415	LEAR	47 GB	0836.8	0857.8	31.8	98.0			QL=6 ST=2 TYP=5
	610	LEAR	8 S	0838.3	0838.6	1.8	29.0			QL=6 ST=2 TYP=3
	200	HIRA	27 RF	0847.6	0904.0	64.0D	76.0U	24.0U		ML,SUNSET
	100	HIRA	27 RF	0851.3	0920.7	60.0D	1200.0U	240.0U		ML,SUNSET
	650	GORK	46 C	0852.0	0858.3	22.4	27.0			
	650	GORK		0852.0	0900.5		25.0			
	650	GORK		0852.0	0902.7		25.0			
	200	GORK	4 S/F	0853.0	0857.7	5.0	30.0D			
	1415	ATHN	47 GB	0853.8	0857.8	23.7	86.0			QL=6 ST=2 TYP=5
	950	GORK	40 F	0854.0	0859.8	46.9	50.0			
	950	GORK		0854.0	0925.2		36.0			
	2950	GORK	45 C	0854.4	0857.8	13.0	63.0			
	2950	GORK		0854.4	0904.1		23.0			
	9100	GORK	3 S	0854.6	0857.6	6.5	80.0			
	245	LEAR	47 GB	0855.0	0857.8	13.0	110.0			QL=6 ST=2 TYP=5
	500	HIRA	45 C	0855.2	0858.2	9.0	45.0	15.0		SL
	410	LEAR	47 GB	0855.6	0858.3	7.5	69.0			QL=6 ST=2 TYP=5
	15000	KISV	29 PBI	0908.4	0908.4	120.0	90.0			
	1415	LEAR	47 GB	0911.3	0911.6	.8	56.0			QL=6 ST=2 TYP=5
	610	LEAR	8 S	0911.3	0911.6	.7	40.0			QL=6 ST=2 TYP=3
	245	LEAR	4 S/F	0912.1	0912.1	130.0	13.0			QL=6 ST=2 TYP=3
	650	GORK	46 C	0918.7	0925.3	23.3	44.0			
	650	GORK		0918.7	0928.7		44.0			
	650	GORK		0918.7	0933.5		42.0			
	1415	ATHN	4 S/F	0922.1	0926.3	19.2	20.0			QL=6 ST=2 TYP=3
	2695	ATHN	4 S/F	0922.3	0925.3	24.5	29.0			QL=6 ST=2 TYP=3
	8800	ATHN	4 S/F	0922.3	0925.3	46.2	33.0			QL=6 ST=2 TYP=3
	2950	GORK	45 C	0922.8	0927.3	16.1	30.0			
	2950	GORK		0922.8	0933.5		25.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	610	LEAR	4	S/F	0924.1	0925.3	6.9	49.0			QL=5 ST=2 TYP=3
	2695	LEAR	8	S	0924.8	0926.3	1.8	21.0			QL=5 ST=2 TYP=3
	1415	LEAR	4	S/F	0925.1	0926.0	4.5	22.0			QL=5 ST=2 TYP=3
	245	LEAR	47	GB	0928.6	0928.6	.2	119.0			QL=5 ST=2 TYP=5
	410	LEAR	4	S/F	0930.1	0930.1	75.0	11.0			QL=5 ST=2 TYP=3
	9100	GORK	2	S/F	0937.1	0937.8	3.4	38.0			
	3100	CRIM	30	PBI	0939.0	0939.0		37.0			
	6100	KISV	29	PBI	0942.6	0942.6	130.0	43.0			
	234	POTS	27	RF	1011.0	1050.5	145.0	55.0	15.0		RISE+I
	8800	SGMR	47	GB	1037.1	1040.3	18.7	42.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1037.6	1039.6	18.7	24.0			QL=6 ST=2 TYP=3
	200	GORK	46	C	1037.7	1041.7	11.5	20.0			
	200	GORK			1037.7	1046.9U		30.0D			
	245	SGMR	4	S/F	1040.5	1041.3	16.1	34.0			QL=6 ST=2 TYP=3
	536	ONDR	2	S/F	1040.8	1046.8	36.0	19.0	11.0		
	2650	DWIN	41	F	1045.0	1053.0	15.0	40.0	20.0		
	9500	POTS	3	S	1045.6	1046.8	1.5	113.0			
	3100	CRIM	40	F	1046.0	1046.2	15.0	18.0	6.0		
	2950	GORK	3	S	1046.0	1046.5	2.0	18.4			
	15000	KISV	4	S/F	1046.0	1046.6	1.5	190.0			
	3100	CRIM			1046.0	1053.2		8.0			
	3100	CRIM			1046.0	1059.8		4.0			
	950	GORK	4	S/F	1046.1	1046.8	4.8	37.0			
	204	IZMI	45	C	1046.2	1046.6	1.4	2400.0	470.0		
	9100	GORK	4	S/F	1046.2	1046.6	1.5	75.0			
	234	POTS	42	SER	1046.2	1046.6	4.5	1200.0	40.0		III
	650	GORK	4	S/F	1046.2	1046.7	4.2	26.0			
	100	GORK	41	F	1046.2	1046.7U	26.3	900.0D			
	6100	KISV	2	S/F	1046.2	1046.7	1.5	17.0			
	3000	POTS	4	S/F	1046.2	1046.8	1.8	38.0			
	1470	POTS	3	S	1046.2	1046.9	1.8	40.0			
	100	GORK			1046.2	1050.1		800.0			
	100	GORK			1046.2	1100.0		260.0			
	100	GORK			1046.2	1109.2		300.0			
	610	SGMR	4	S/F	1046.3	1046.6	9.7	49.0			QL=6 ST=2 TYP=3
	113	POTS	4	S/F	1046.3	1046.7	2.8	6700.0	350.0		III
	1415	SGMR	4	S/F	1046.5	1046.6	9.5	34.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1046.5	1046.6	10.1	31.0			QL=6 ST=2 TYP=3
	808	ONDR	4	S/F	1046.5	1046.8	3.8	30.0	20.0		
	410	SGMR	4	S/F	1046.6	1047.3	9.4	20.0			QL=6 ST=2 TYP=3
	2950	GORK	3	S	1052.5	1053.3	1.4	11.3			
	2800	OTTA	26A	FAL	1055.0E	1425.0	210.0D	-26.0			
	2800	OTTA	4	S/F	1059.0	1059.8	2.5	12.6	3.4		
	650	GORK	41	F	1108.5	1108.7	1.7	80.0			
	650	GORK			1108.5	1110.0		28.0			
	2800	OTTA	40	F	1118.5	1118.6	2.0	7.6			
	8800	ATHN	4	S/F	1123.0	1125.0	8.5	20.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1123.3	1125.0	9.2	9.0			QL=6 ST=2 TYP=3
	9400	HUAN	1	S	1302.0	1305.2	7.0	8.6	5.4		0
	9400	HUAN	20	GRF	1321.6	1355.3	57.9	10.4	5.2		0
	536	ONDR	8	S	1324.3	1324.4	.2	15.0			
	6100	KISV	2	S/F	1347.7	1348.2	2.0	6.0			
	1470	POTS	4	S/F	1400.5	1400.8	3.0	77.0			
	1415	ATHN	47	GB	1400.6	1401.0	2.0	130.0			QL=6 ST=3 TYP=5
	1415	SGMR	47	GB	1400.8	1401.0	1.5	139.0			QL=6 ST=2 TYP=5
	9400	HUAN	22	GRF	1430.7	1446.3	35.9	13.8	4.2		R
	245	SGMR	4	S/F	1452.0	1457.0	7.3	460.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1504.1	1504.1	2.4	260.0			QL=6 ST=2 TYP=3
	9400	HUAN	23	GRF	1515.1	1631.8	158.0	27.7	11.6		R
	9400	HUAN	2	S/F	1517.7	1518.4	2.3	19.0	10.0		R
	8800	SGMR	8	S	1518.1	1518.3	.2	19.0			QL=6 ST=2 TYP=3
	2800	OTTA	21	GRF	1525.0	1532.0	12.0	3.0	1.5		
	1415	ATHN	49	GB	1526.0	1529.5	7.8	10000.0			QL=6 ST=3 TYP=6
	1415	SGMR	49	GB	1526.6	1529.5	7.0	9900.0			QL=6 ST=2 TYP=6
	2800	OTTA	2	S/F	1527.5	1528.0	1.0	6.8	3.3		
	2695	ATHN	47	GB	1527.6	1529.6	2.7	96.0			QL=6 ST=3 TYP=5
	2800	OTTA	4	S/F	1529.0	1529.4	2.0	130.0	26.0		
	2695	SGMR	47	GB	1529.3	1529.5	.3	100.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	1529.6	1530.1	.5	20.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1536.1	1536.3	.2	56.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	2800	OTTA	1	S	1544.0	1544.3	1.2	3.2	1.5		
	610	SGMR	47	GB	1546.6	1546.6	.2	62.0			QL=6 ST=2 TYP=5
	2800	OTTA	20	GRF	1610.0	1620.0	30.0	4.6	2.3		
	4995	ATHN	20	GRF	1617.0	1619.3	9.6	21.0			QL=6 ST=2 TYP=2
	8400	BERN	3	S	1617.0	1619.4	2.4D	50.0			
	19600	BERN	21	GRF	1617.0	1619.4	45.0	49.0			
	11800	BERN	21	GRF	1617.0	1619.4	45.0	61.0			
	8800	ATHN	20	GRF	1617.1	1619.6	9.5	59.0			QL=6 ST=2 TYP=2
	15400	SGMR	47	GB	1618.3	1619.3	7.0	78.0			QL=6 ST=2 TYP=5
	9400	HUAN	4	S/F	1618.4	1619.6	7.4	34.6	16.8		R
	8800	SGMR	4	S/F	1618.6	1619.6	6.0	37.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1619.3	1619.3	.2	17.0			QL=6 ST=2 TYP=3
	2800	OTTA	21	GRF	1650.0	1705.0	45.0	7.0	3.6		
	2800	OTTA	3	S	1655.0	1657.5	7.0	10.2	5.2		
	9400	HUAN	3	S	1655.8	1657.4	4.7	24.2	16.1		R
	8800	SGMR	8	S	1656.8	1657.3	1.7	22.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1656.8	1657.3	.8	26.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1823.0	1823.1	1.3	46.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1823.0	1823.1	1.3	43.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1823.0	1823.1	1.3	39.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1823.0	1823.1	1.3	21.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1835.1	1835.1	.9	290.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1835.1	1835.3	2.0	490.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1835.6	1836.1	1.5	169.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	1835.8	1836.1	2.5	169.0			QL=6 ST=2 TYP=5
	2800	OTTA	22	GRF	1910.0	1925.0	45.0	2.0	1.0		
	8800	SGMR	4	S/F	1928.3	1929.6	9.5	33.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1932.5	1932.6	.3	73.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1932.6	1932.8	1.2	180.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1946.3	1947.1	1.8	160.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	1946.3	1947.1	3.0	180.0			QL=6 ST=2 TYP=5
	8800	SGMR	8	S	1947.1	1948.3	1.2D	18.0			QL=6 ST=2 TYP=3
	610	PALE	4	S/F	1951.8	1951.8	3.5	32.0			QL=6 ST=2 TYP=3
	2695	PENT	23	GRF	2000.0	2004.0	18.0	2.6	1.3		
	245	SGMR	8	S	2010.3	2010.5	1.0	440.0			QL=6 ST=2 TYP=3
	245	PALE	49	GB	2010.3	2011.1	2.2	920.0			QL=6 ST=2 TYP=6
	2695	PENT	1	S	2011.0	2011.1	1.0	5.6	2.8		
	100	HIRA	42	SER	2014.3	2025.3	18.3	10000.0			WL
	500	HIRA	42	SER	2017.0	2017.8	11.0	50.0			ML
	245	PALE	47	GB	2017.1	2017.8	6.7	200.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	2017.1	2018.0	1.0	119.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2017.3	2017.6	.8	40.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	2017.3	2017.6	.7	40.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	2017.3	2017.6	1.8	51.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2017.3	2018.1	1.8	53.0			QL=6 ST=2 TYP=5
	2800	OTTA	1	S	2024.5	2025.2	9.0	5.6	1.9		
	15400	SGMR	47	GB	2024.6	2025.3	1.2	90.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2024.6	2025.3	3.5	51.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2024.6	2025.5	3.2	110.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2024.6	2026.1	4.7	78.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	2024.8	2025.0	.2	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2024.8	2025.3	.8	37.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	2024.8	2025.3	1.8	59.0			QL=6 ST=2 TYP=5
	4995	PALE	8	S	2024.8	2025.3	1.3	18.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	2025.1	2025.3	.5	48.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2026.1	2026.8	1.4	31.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2026.6	2026.8	1.5	22.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2030.1	2030.3	1.7	130.0			QL=6 ST=2 TYP=5
	8800	PALE	8	S	2030.3	2030.5	1.3	13.0			QL=6 ST=2 TYP=3
	100	HIRA	42	SER	2052.3	2102.3	11.0	850.0			WL
	200	HIRA	42	SER	2054.0	2054.6	3.8	1150.0			WL
	410	PALE	47	GB	2054.1	2056.6	4.0	100.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2054.1	2056.6	4.0	320.0			QL=6 ST=2 TYP=5
	200	HIRA	48	C	2101.6	2107.1	43.6	67000.0	583.0		WL
	9400	HUAN	45	C	2105.5	2106.6U	4.0	164.4	71.0		
	100	HIRA	48	C	2106.0		15.8	10000.0D	1510.0D		
	2800	OTTA	46F	C	2106.0	2107.0	9.0	390.0	43.0		
	208	VORO	46	C	2106.0	2107.0	10.0	200.0D			
	500	HIRA	45	C	2106.0	2108.1	20.0	135.0	50.0		WR
	410	SGMR	49	GB	2106.1	2106.3	11.7	700.0			QL=6 ST=2 TYP=6

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	410	PALE	49	GB	2106.1	2106.3	14.5	960.0			QL=6 ST=2 TYP=6
	15400	SGMR	47	GB	2106.1	2107.1	4.9	370.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	2106.3	2107.1	2.5	420.0			QL=6 ST=2 TYP=5
	4995	PALE	49	GB	2106.3	2107.1	5.0	570.0			QL=6 ST=2 TYP=6
	2695	PALE	47	GB	2106.3	2107.1	6.5	400.0			QL=6 ST=2 TYP=5
	3750	TYKW	45	C	2106.3	2107.1	6.7	440.0	43.0		
	8800	PALE	49	GB	2106.3	2107.1	3.7	730.0			QL=6 ST=2 TYP=6
	4995	SGMR	47	GB	2106.3	2107.1	4.2	490.0			QL=6 ST=2 TYP=5
	245	PALE	49	GB	2106.3	2107.1	9.3	33000.0			QL=6 ST=2 TYP=6
	15400	PALE	47	GB	2106.3	2107.1	3.5	370.0			QL=6 ST=2 TYP=5
	1415	SGMR	49	GB	2106.3	2107.1	12.8	920.0			QL=6 ST=2 TYP=6
	17000	NOBE	7	C	2106.3	2107.2	3.0	358.0			R
	1415	PALE	49	GB	2106.3	2107.3	10.8	910.0			QL=6 ST=2 TYP=6
	610	SGMR	47	GB	2106.3	2108.3	12.5	210.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	2106.3	2108.3	16.3	210.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	2106.5	2107.1	5.0	400.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	2106.6	2107.1	2.9	28000.0			QL=6 ST=2 TYP=6
	9400	TYKW	47	GB	2107.0E	2107.1U	2.0D	550.0	60.0D		
	9400	TYKW	30	PBI	2109.0		16.0	25.0	8.0		
	9400	HUAN	29	PBI	2109.5	2109.5	14.5	24.2	19.3		
	3750	TYKW	29	PBI	2113.0		15.0	10.0	3.5		
	2800	OTTA	29	PBI	2115.0	2115.0	11.0	9.6	3.2		
	9400	TYKW	5	S	2119.0	2120.4	5.0	13.0	5.0		
	9400	HUAN	28	PRE	2126.7	2156.5U	29.8	20.8	16.2		0
	9400	TYKW	5	S	2132.5	2134.0	6.0	11.0	3.0		
	9400	TYKW	5	S	2140.0	2141.3	6.0	6.0	3.0		
	3750	TYKW	21	GRF	2140.0	2213.0	80.0	4.0	1.5		
	2800	OTTA	8	S	2148.4	2148.5	.6	3.0	1.7		
	3750	TYKW	45	C	2148.5	2148.7	1.5	7.0	2.0		
	9400	TYKW	28	PRE	2148.5	2153.8	13.5	7.0	3.0		
	2800	OTTA	20	GRF	2200.0	2220.0	35.0	2.0	1.0		
	200	HIRA	46	C	2201.7	2201.9	2.3	64.0	24.0		0
	100	HIRA	46	C	2201.8	2201.9	1.8	1000.0	310.0		WL
	245	PALE	4	S/F	2201.8	2202.0	10.0	44.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	2202.0	2209.8	18.0	77.0	20.0		
	8800	SGMR	47	GB	2203.5	2209.8	12.8	70.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2203.6	2203.8	12.0	19.0			QL=6 ST=2 TYP=5
	9400	HUAN	45	C	2206.0E	2209.7	7.2D	64.0	26.7		R
	15400	SGMR	8	S	2209.0	2209.8	1.8	44.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2209.1	2209.8	2.7	40.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	2220.0		15.0	8.0	3.0		
	500	HIRA	1	S	2239.3	2240.0	2.0	2.0	1.0		ML
	200	HIRA	46	C	2239.3	2251.3	15.4	1400.0	26.0		WL
	9400	TYKW	45	C	2239.4	2240.6	4.6	113.0	35.0		
	2800	OTTA	1	S	2239.5	2240.5	4.0	8.0	4.0		
	3750	TYKW	5	S	2239.5	2240.7	5.0	18.0	6.0		
	15400	SGMR	47	GB	2239.6	2239.8	1.9	130.0			QL=6 ST=2 TYP=5
	17000	NOBE	7	C	2239.6	2239.9	31.0	135.0			R
	8800	SGMR	47	GB	2239.6	2240.6	1.7	90.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	2239.6	2240.6	1.5	38.0			QL=6 ST=2 TYP=3
	17000	NOBE			2239.6	2251.4		111.0			0
	17000	NOBE			2239.6	2304.2		77.0			0
	35000	NAGO	5	S	2240.0	2240.0	1.0	50.0			
	9400	TYKW	30	PBI	2244.0		36.0	7.0	4.0		
	9400	TYKW	45	C	2245.0	2251.3	16.0	120.0	15.0		
	3750	TYKW	5	S	2250.0	2251.5	4.0	21.0	6.0		
	208	VORO	40	F	2250.0	2252.0	5.0	200.0D			
	100	HIRA	46	C	2250.3	2251.0	4.0	5600.0	1600.0		ML
	245	PALE	49	GB	2250.3	2251.5	4.2	1199.0			QL=2 ST=3 TYP=6
	500	HIRA	45	C	2250.4	2251.3	2.0	10.0	4.0		SL
	2800	OTTA	1	S	2250.8	2251.3	3.0	6.4	2.1		
	8800	SGMR	47	GB	2250.8	2251.3	1.3	88.0			QL=6 ST=2 TYP=5
	35000	NAGO	5	S	2251.0	2251.0	3.0	120.0			
	4995	SGMR	47	GB	2251.0	2251.3	1.0	51.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	2251.1	2251.3	1.0	119.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	2251.3	2251.5	1.0	740.0			QL=6 ST=2 TYP=6
	8800	PALE	47	GB	2251.8	2252.0	4.7	42.0			QL=2 ST=3 TYP=5
	15400	PALE	47	GB	2251.8	2252.1	3.8	52.0			QL=2 ST=3 TYP=5
	2695	PENT	23	GRF	2300.0	2345.0	175.0	12.0	6.0		
	9400	TYKW	45	C	2302.5	2303.8	9.5	50.0	12.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	3750	TYKW	5	S	2303.0	2304.2	5.0	25.0	9.0		
	8800	PALE	47	GB	2303.3	2303.8	2.7	50.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2303.3	2304.1	2.5	94.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	2303.6	2303.8	.9	69.0			QL=6 ST=2 TYP=5
	2695	PENT	3	S	2303.6	2304.2	1.8	18.4	9.2		
	4995	SGMR	8	S	2304.0	2304.1	.3	24.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2304.0	2304.1	.1	20.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2304.0	2304.1	1.6	23.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2304.0	2304.3	1.5	19.0			QL=6 ST=2 TYP=3
	2695	PENT	29	PBI	2305.4	2305.4	13.0	7.6	3.4		
	3750	TYKW	30	PBI	2308.0		160.0	6.0	3.0		
	9400	TYKW	45	C	2313.4	2313.7	2.0	6.0	3.0		
	3750	TYKW	21	GRF	2320.0	0018.0	130.0	15.0	9.0		
	9400	TYKW	21	GRF	2323.0	2334.0	78.0	8.0	4.0		
	9400	TYKW	45	C	2325.8	2326.7	5.5	6.0	2.0		
	410	LEAR	8	S	2336.5	2336.6	.1	18.0			QL=6 ST=2 TYP=3
	9400	TYKW	21	GRF	2339.0	2347.0	60.0	10.0	6.0		
	9400	TYKW	45	C	2353.0	2354.0	3.0	11.0	2.0		
	245	LEAR	47	GB	2355.0	2356.3	2.0	73.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	2355.0	2356.3	2.0	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2355.0	2356.3	2.0	37.0			QL=6 ST=2 TYP=3
10	200	GORK	44	NS	0256.0E		416.0D		5.0		
	33	UPIC	43	NS	0408.2		861.8D				
	260	ONDR	44	NS	0601.0E	0834.0U	480.0D				
	245	SGMR	43	NS	1424.0	2219.1	574.0D	230.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1631.0	1642.1	739.0D	160.0			QL=2 ST=2 TYP=1
	208	VORO	44	NS	2100.0E		360.0D				
	1000	TYKW	45	C	0016.4	0018.2	3.0	35.0	1.5		
	1000	TYKW	42	SER	0021.0	0024.0	5.0	58.0	1.5		
	500	HIRA	42	SER	0023.6	0036.3	14.0	65.0			ML
	2000	TYKW			0028.0	0029.3		6.0			
	1000	TYKW	45	C	0028.0	0029.5	6.0	26.0	2.0		
	2000	TYKW	45	C	0028.0	0037.0	15.0	16.0	2.0		
	3750	TYKW	45	C	0028.0	0037.0	15.0	13.0	2.0		
	610	LEAR	47	GB	0028.6	0028.6	.2	130.0			QL=6 ST=2 TYP=5
	15400	LEAR	8	S	0028.8	0029.0	1.7	17.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	0028.8	0029.1	1.3	22.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0029.3	0029.5	.2	5.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0029.3	0029.5	.3	6.0			QL=6 ST=2 TYP=3
	610	LEAR	49	GB	0030.6	0031.8	1.2	730.0			QL=6 ST=2 TYP=6
	2840	PEKG	1	S	0034.0	0037.0	7.0	4.4	.9		
	1000	TYKW	45	C	0036.0	0037.1	6.0	20.0	5.0		
	1415	LEAR	8	S	0036.3	0037.0	.8	19.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0036.5	0036.6	.1	78.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	0036.5	0036.6	.1	20.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0036.6	0036.8	.2	49.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0036.8	0037.0	.2	11.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0053.0	0055.0	13.0	1.5	.7		
	1000	TYKW	45	C	0107.0	0108.6	5.0	133.0	25.0		
	2000	TYKW	45	C	0107.0	0110.1	4.5	270.0	20.0		
	1415	LEAR	47	GB	0107.3	0108.3	3.8	180.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	0107.5	0108.5	4.1	219.0			QL=2 ST=2 TYP=5
	245	LEAR	8	S	0121.3	0121.5	.2	28.0			QL=6 ST=2 TYP=3
	2695	PENT	4	S/F	0125.5	0126.0	4.0	25.0	12.0		
	9395	PEKG			0131.0	0138.3					
	9395	PEKG			0131.0	0142.2					
	9395	PEKG	45	C	0131.0	0145.0	21.0	234.0	62.0		
	15400	PALE	8	S	0132.8	0133.0	1.3	50.0			QL=2 ST=2 TYP=3
	15400	LEAR	47	GB	0132.8	0138.1	18.3	400.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0132.8	0138.3	16.3	169.0			QL=6 ST=2 TYP=5
	100	HIRA	42	SER	0132.8	0140.3	14.0	10000.0			ML
	17000	NOBE	7	C	0132.9	0138.3	43.0	421.0			RLR
	1000	TYKW	45	C	0133.0	0138.2	16.0	109.0	4.5		
	4995	MANI	47	GB	0133.3	0201.1	46.7	360.0			QL=6 ST=2 TYP=5
	8800	MANI	47	GB	0135.0	0201.0	27.0	210.0			QL=6 ST=2 TYP=5
	2000	TYKW	45	C	0135.5	0136.7	12.5	23.0	3.0		
	15400	PALE	49	GB	0135.8	0138.3	17.5	500.0			QL=2 ST=2 TYP=6
	3750	TYKW	45	C	0136.0	0138.7	16.0	17.0	4.0		
	2840	PEKG	5	S	0136.0	0139.0	13.0	5.9	4.6		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	500	HIRA	42	SER	0136.6	0137.9	10.0	1700.0			ML
	610	MANI	49	GB	0137.0	0138.5	25.0	990.0			QL=6 ST=2 TYP=6
	8800	PALE	47	GB	0137.3	0138.3	10.8	180.0			QL=2 ST=2 TYP=5
	610	LEAR	49	GB	0137.8	0138.1	8.8	2100.0			QL=6 ST=2 TYP=6
	410	LEAR	49	GB	0137.8	0138.1	3.8	1100.0			QL=6 ST=2 TYP=6
	35000	NAGO	45	C	0138.0	0138.0	11.0	200.0			
	410	PALE	49	GB	0138.0	0138.1	4.0	1000.0			QL=2 ST=2 TYP=6
	610	PALE	49	GB	0138.0	0138.1	3.6	2000.0			QL=2 ST=2 TYP=6
	245	LEAR	49	GB	0138.0	0138.1	4.6	1300.0			QL=6 ST=2 TYP=6
	208	VORO	41	F	0138.0	0139.0	8.0	200.0D			
	35000	NAGO			0138.0	0140.0		90.0			
	200	HIRA	46	C	0138.0	0140.3	8.4	2100.0	217.0		0
	208	VORO			0138.0	0141.0		200.0D			
	35000	NAGO			0138.0	0142.0		80.0			
	35000	NAGO			0138.0	0145.0		120.0			
	4995	LEAR	4	S/F	0138.0	0145.6	8.0	30.0			QL=6 ST=2 TYP=3
	208	VORO			0138.0	0146.0		200.0D			
	2695	MANI	47	GB	0138.0	0201.1	26.8	320.0			QL=6 ST=2 TYP=5
	245	PALE	49	GB	0138.1	0138.3	5.2	1100.0			QL=2 ST=2 TYP=6
	4995	PALE	4	S/F	0138.1	0139.3	2.4	20.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0138.3	0138.5	1.8	13.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0138.5	0138.6	1.1	13.0			QL=2 ST=2 TYP=3
	1415	MANI	4	S/F	0138.5	0201.1	24.3	39.0			QL=6 ST=2 TYP=3
	2000	TYKW	31	ABS	0148.0	0225.0	85.0	-4.0	-2.0		
	35000	NAGO	29	PBI	0149.0	0149.0	51.0	15.0			
	3750	TYKW	31	ABS	0152.0	0231.0	110.0	-7.0	-3.0		
	9395	PEKG			0152.0	0159.5					
	9395	PEKG	45	C	0152.0	0200.5	12.0	232.0	39.0		
	100	HIRA	42	SER	0155.3	0207.0	16.7	1900.0			WL
	2840	PEKG	3	S	0157.0	0200.5	8.0	96.0	11.0		
	2000	TYKW	45	C	0158.0	0200.5	6.0	113.0	17.0		
	3750	TYKW	45	C	0158.0	0200.5	10.0	135.0	15.0		
	500	HIRA	45	C	0158.0	0200.3	3.0	80.0	10.0		ML
	1000	TYKW	45	C	0158.5	0159.6	4.5	51.0	7.0		
	8800	PALE	47	GB	0158.8	0200.3	3.0	200.0			QL=2 ST=2 TYP=5
	15400	LEAR	47	GB	0158.8	0200.3	2.0	180.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0158.8	0200.3	2.5	200.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	0158.8	0200.3	3.3	60.0			QL=6 ST=2 TYP=5
	4995	LEAR	47	GB	0158.8	0200.3	3.5	130.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	0158.8	0200.3	3.0	139.0			QL=2 ST=2 TYP=5
	2695	PALE	47	GB	0158.8	0200.5	3.8	139.0			QL=2 ST=2 TYP=5
	610	PALE	47	GB	0158.8	0200.5	3.3	70.0			QL=2 ST=2 TYP=5
	2695	LEAR	47	GB	0159.0	0200.3	3.3	139.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	0159.1	0200.3	2.7	219.0			QL=2 ST=2 TYP=5
	410	LEAR	47	GB	0159.3	0200.5	1.3	169.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0159.3	0200.5	2.5	32.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0200.1	0200.5	1.0	239.0			QL=6 ST=2 TYP=5
	1415	PALE	4	S/F	0200.1	0200.6	2.2	36.0			QL=2 ST=2 TYP=3
	245	PALE	47	GB	0200.1	0200.6	1.5	290.0			QL=2 ST=2 TYP=5
	410	PALE	47	GB	0200.3	0200.6	1.3	200.0			QL=2 ST=2 TYP=5
	2000	TYKW	29	PBI	0204.0		5.0	3.0	1.0		
	9395	PEKG	29	PBI	0204.0		26.0	15.0	6.8		
	1000	TYKW	5	S	0205.0	0205.4	1.5	1.5	.5		
	410	LEAR	47	GB	0205.1	0205.1	.2	56.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0205.1	0205.1	.2	22.0			QL=6 ST=2 TYP=3
	1000	TYKW	31	ABS	0206.5	0227.0	69.0	-2.0	-1.0		
	1000	TYKW	5	S	0207.0	0207.2	1.0	2.0	1.0		
	1000	TYKW	8	S	0215.3	0215.4	.3	7.0	2.0		
	1000	TYKW	5	S	0234.0	0234.2	.5	1.0	.3		
	1000	TYKW	5	S	0310.6	0311.2	2.5	25.0	7.0		
	1415	LEAR	47	GB	0310.8	0311.1	.8	54.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	0311.0	0311.3	1.6	63.0			QL=2 ST=2 TYP=5
	1415	MANI	49	GB	0311.8	0317.3	12.0	3399.0			QL=6 ST=2 TYP=6
	3750	TYKW	45	C	0315.0	0317.1	8.0	63.0	8.0		
	2000	TYKW	45	C	0315.0	0317.4	8.0	228.0	22.0		
	1000	TYKW	45	C	0315.5	0317.1	11.5	73.0	18.0		
	2695	MANI	47	GB	0315.8	0317.1	5.3	63.0			QL=6 ST=2 TYP=5
	8800	MANI	47	GB	0316.1	0317.1	3.9	150.0			QL=6 ST=2 TYP=5
	4995	MANI	47	GB	0316.1	0317.1	5.0	80.0			QL=6 ST=2 TYP=5
	200	HIRA	46	C	0316.3	0316.7	16.0	2400.0	56.0		WL

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	8800	LEAR	47	GB	0316.3	0317.0	6.3	150.0			QL=6 ST=2 TYP=5
	4995	LEAR	47	GB	0316.3	0317.0	4.5	83.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	0316.3	0317.1	4.3	100.0			QL=2 ST=2 TYP=5
	8800	PALE	47	GB	0316.3	0317.1	5.5	200.0			QL=2 ST=2 TYP=5
	1415	LEAR	49	GB	0316.3	0317.3	4.7	3899.0			QL=6 ST=2 TYP=6
	1415	PALE	49	GB	0316.3	0317.3	5.8	2100.0			QL=2 ST=2 TYP=6
	100	HIRA	46	C	0316.5		8.0	10000.0D	1670.0D		
	15400	LEAR	47	GB	0316.5	0317.0	6.1	74.0			QL=6 ST=2 TYP=5
	610	MANI	20	GRF	0316.5	0317.1	5.6	34.0			QL=6 ST=2 TYP=2
	15400	PALE	47	GB	0316.5	0317.1	4.6	100.0			QL=2 ST=2 TYP=5
	950	GORK	4	S/F	0316.5	0318.1	17.7	56.0			
	2695	LEAR	47	GB	0316.6	0317.0	5.5	62.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	0316.6	0317.0	6.5	70.0			QL=6 ST=2 TYP=5
	245	LEAR	49	GB	0316.6	0317.1	4.9	940.0			QL=6 ST=2 TYP=6
	245	PALE	49	GB	0316.6	0317.1	4.0	1800.0			QL=2 ST=2 TYP=6
	410	LEAR	47	GB	0316.6	0317.1	6.0	230.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	0316.6	0317.1	3.7	70.0			QL=2 ST=2 TYP=5
	610	PALE	47	GB	0316.6	0317.1	7.0	71.0			QL=2 ST=2 TYP=5
	500	HIRA	3	S	0316.7	0317.2	10.0	36.0	16.0		WR
	410	PALE	47	GB	0316.8	0317.1	6.3	500.0			QL=2 ST=2 TYP=5
	100	GORK			0317.0		10.4				
	35000	NAGO	45	C	0317.0	0317.0	4.0	38.0			
	200	GORK	4	S/F	0317.0	0317.7	4.6	130.0D			
	35000	NAGO			0317.0	0320.0		10.0			
	9100	GORK	23	GRF	0318.0E						
	9100	GORK	3	S	0319.0	0319.5	2.7	40.0			
	2000	TYKW	30	PBI	0323.0		7.0	4.0	1.5		
	650	GORK	21	GRF	0323.0E		272.0D	4.0			
	2950	GORK	23	GRF	0324.0E		378.0D				
	1000	TYKW	29	PBI	0327.0		10.0	3.0	1.0		
	2000	TYKW	31	ABS	0330.0	0349.0	35.0	-2.0	-1.0		
	500	HIRA	46	C	0345.4	0346.3	6.3	7.0	3.0		SL
	650	GORK	45	C	0346.6	0346.8	4.8	5.0			
	650	GORK			0346.6	0349.0		2.5			
	3750	TYKW	28	PRE	0404.0	0408.0	4.0	2.0	1.0		
	100	HIRA	46	C	0407.7		7.0	10000.0D	1320.0D		
	2000	TYKW	45	C	0408.0	0408.5	7.0	62.0	10.0		
	3750	TYKW	45	C	0408.0	0408.5	4.0	69.0	10.0		
	1000	TYKW	45	C	0408.0	0409.7	15.0	96.0	10.0		
	200	HIRA	46	C	0408.0	0408.4	9.7	20000.0	620.0		0
	2840	PEKG	5	S	0408.0	0408.4	8.0	33.0	6.2		
	6100	KISV	46	C	0408.0	0408.6	2.0	34.0			
	6100	KISV			0408.0	0409.0		17.0			
	500	HIRA	3	S	0408.0	0409.0	10.0	30.0	16.0		WR
	6100	KISV			0408.0	0409.2		20.0			
	200	GORK	8	S	0408.1	0408.9	2.4	1340.0D			
	17000	NOBE	7	C	0408.3	0408.8	1.0	116.0			L
	15000	KISV	40	F	0408.3	0409.0	2.0	72.0			
	2950	GORK	4	S/F	0408.5	0409.0	4.5	47.0			
	650	GORK	4	S/F	0408.5	0410.0	6.5	76.0			
	9100	GORK	4	S/F	0408.6	0409.3	1.4	60.0			
	950	GORK	4	S/F	0408.6	0410.1	9.4	57.0			
	100	GORK	8	S	0409.3	0409.5	1.0	1150.0			
	3750	TYKW	29	PBI	0412.0		10.0	4.0	1.5		
	2000	TYKW	31	ABS	0415.0	0425.0	34.0	-3.0	-1.5		
	3750	TYKW	45	C	0428.0	0428.9	4.0	1.5	.5		
	2000	TYKW	5	S	0428.4	0428.8	2.5	2.5	1.0		
	1000	TYKW	8	S	0428.7	0428.8	.3	2.0	.5		
	3750	TYKW	21	GRF	0434.0	0501.0	100.0	6.0	2.0		
	500	HIRA	45	C	0446.7	0448.1	2.0	15.0	6.0		WR
	1000	TYKW	42	SER	0450.9	0451.4	3.0	4.0	1.0		
	2000	TYKW	21	GRF	0451.0	0501.0	80.0	4.0	2.0		
	1000	TYKW	45	C	0458.0	0501.7	10.0	3.0	1.0		
	200	GORK	8	S	0500.8	0501.1	.8	140.0D			
	1000	TYKW	8	S	0514.0	0514.2	.4	3.0	1.0		
	950	GORK	4	S/F	0515.6	0518.6	6.3	27.0			
	200	GORK	41	F	0516.4	0516.7	4.9	140.0D			
	100	GORK	46	C	0516.4	0516.7	10.4	95.0D			
	650	GORK	4	S/F	0516.4	0517.2	1.9	47.0			
	100	GORK			0516.4	0517.4		70.0			

SOLAR RADIO EMISSION
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JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	200	GORK			0516.4	0520.0		140.0			
	3750	TYKW	45	C	0517.0	0519.0	6.0	3.0	1.0		
	1000	TYKW	45	C	0517.0	0519.3	3.0	22.0	3.5		
	650	GORK	4	S/F	0520.1	0520.7	.8	10.0			
	1000	TYKW	5	S	0520.8	0521.1	2.0	1.0	.3		
	2000	TYKW	5	S	0528.0	0529.3	5.0	2.5	1.0		
	3750	TYKW	45	C	0528.5	0536.0	9.0	5.0	2.0		
	1000	TYKW	45	C	0529.0	0531.1	5.0	12.0	1.0		
	3750	TYKW			0529.5	0529.5		4.0			
	2000	TYKW	5	S	0533.0	0533.3	1.0	1.0	.3		
	1000	TYKW	8	S	0535.4	0535.5	.2	6.0	1.5		
	2000	TYKW	5	S	0535.8	0536.0	.5	2.0	.7		
	1000	TYKW	45	C	0538.0	0544.3	8.0	7.0	1.0		
	2000	TYKW	5	S	0542.0	0542.2	.6	1.0	.3		
	9400	TYKW			0547.0	0551.4		20.0			
	9100	GORK	46	C	0547.1	0547.7	4.6	25.0			
	9100	GORK			0547.1	0550.6		20.0			
	200	GORK	41	F	0547.2	0550.5	16.6	140.0			
	200	GORK			0547.2	0556.1		140.0D			
	200	GORK			0547.2	0600.5		140.0D			
	15000	KISV	2	S/F	0547.8	0548.5	2.0	18.0			
	2000	TYKW	5	S	0548.0	0548.2	1.0	2.0	.5		
	1000	TYKW	45	C	0548.0	0558.6	23.0	32.0	2.0D		
	6100	KISV	1	S	0548.0	0548.5	2.0	6.0			
	100	GORK	41	F	0550.2	0550.5	110.0	100.0D			
	100	GORK			0550.2	0553.1		100.0D			
	100	GORK			0550.2	0557.5		100.0D			
	100	GORK			0550.2	0600.4		100.0D			
	15000	KISV	2	S/F	0550.6	0551.4	2.0	18.0			
	6100	KISV	1	S	0550.9	0551.4	1.5	5.0			
	2840	PEKG	5	S	0556.0	0601.0	11.0	11.0	2.3		
	9100	GORK	2	S/F	0557.1	0557.8	3.6	20.0			
	650	GORK	46	C	0557.2	0558.0	5.8	29.0			
	650	GORK			0557.2	0600.8		13.0			
	6100	KISV	1	S	0557.8	0558.5	2.5	12.0			
	2000	TYKW	5	S	0558.0	0558.4	1.5	2.0	.7		
	3750	TYKW	5	S	0558.0	0558.4	1.5	3.5	1.5		
	9400	TYKW	45	C	0558.0	0601.3	5.0	28.0	7.0		
	950	GORK	3	S	0558.0	0558.1	.7	57.0			
	9400	TYKW			0558.0	0559.5		16.0			
	2950	GORK	2	S/F	0600.2	0600.5	1.3	12.0			
	950	GORK	1	S	0600.3	0600.8	2.1	10.0			
	6100	KISV	2	S/F	0600.9	0605.3	4.4U	17.0			
	2000	TYKW	45	C	0601.0	0601.3	2.0	17.0	4.0		
	200	HIRA	46	C	0601.0	0601.2	5.0	14000.0	200.0		0
	100	HIRA	46	C	0601.0	0601.2	1.3	4500.0	725.0		WL
	500	HIRA	45	C	0601.0	0601.3	3.3	12.0	7.0		WR
	2000	TYKW	29	PBI	0603.0		2.0D	1.5	1.0D		
	9400	TYKW	29	PBI	0603.0		8.0	4.0	2.5D		
	9400	TYKW	5	S	0612.0	0613.3	3.0	12.0	2.5		
	15000	KISV	1	S	0613.2	0613.3	.5	11.0			
	9400	TYKW	21	GRF	0619.0	0640.0	175.0	12.0	6.0		
	2840	PEKG	20	GRF	0619.0	0651.0	101.0	8.2	2.3		
	9400	TYKW	5	S	0619.3	0619.7	1.0	3.0	1.0		
	3750	TYKW	21	GRF	0620.0	0650.0	110.0	14.0	7.0		
	9400	TYKW	5	S	0622.5	0623.5	4.0	8.0	3.0		
	204	IZMI	41	F	0624.5	0626.5	3.6	770.0			
	9400	TYKW	45	C	0628.0	0631.1	9.0	6.0	3.0		
	2000	TYKW	21	GRF	0628.0	0649.0	165.0	10.0	4.0		
	1000	TYKW	45	C	0628.5	0629.0	1.5	35.0	5.0		
	536	ONDR	4	S/F	0628.8	0629.1	.8	98.0			
	1000	TYKW	42	SER	0637.3	0637.7	.6	4.0	.7		
	1000	TYKW	21	GRF	0640.0	0705.0	90.0	1.5	.7		
	1000	TYKW	45	C	0645.0	0650.7	7.0	2.0	.5		
	9400	TYKW	28	PRE	0647.0	0712.0	26.4	14.0	6.0		
	650	GORK	46	C	0647.3	0647.3	3.0	22.0			
	650	GORK			0647.3	0648.8		24.0			
	1000	TYKW	45	C	0656.3	0656.6	1.7	4.0	1.0		
	2000	TYKW	45	C	0657.0	0657.1	5.0	3.0	1.0		
	1470	POTS	22	GRF	0705.0	0719.4	23.0	7.0			

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	200	HIRA	42	SER	0705.5	0719.3	22.0	770.0			WL
	200	GORK			0705.6E	0719.1		140.0D			
	1000	TYKW	5	S	0706.7	0706.8	.5	1.0	.3		
	9500	POTS	23	GRF	0707.0	0719.0	20.0	92.0			
	1000	TYKW	42	SER	0708.0	0708.7	2.5	3.0	.3		
	650	GORK	46	C	0709.0	0713.6	17.7	85.0			
	650	GORK			0709.0	0714.5U		85.0D			
	650	GORK			0709.0	0715.2U		85.0D			
	650	GORK			0709.0	0719.3		50.0			
	3750	TYKW	5	S	0710.0	0710.8	2.0	3.0	1.0		
	1000	TYKW	45	C	0713.0	0713.9	2.0	345.0	17.0		
	950	GORK	46	C	0713.2	0713.8	8.3	165.0			
	950	GORK			0713.2	0714.0		120.0			
	500	HIRA	42	SER	0713.3	0715.0	2.2	500.0			WL
	100	HIRA	42	SER	0713.3	0722.9	10.3	2400.0			WL
	536	ONDR	46	C	0713.4	0715.3	3.8	231.0			
	9100	GORK	46	C	0713.4	0718.1	18.3	53.0			
	9100	GORK			0713.4	0719.4		130.0			
	2000	TYKW	45	C	0713.4	0719.4	8.0	7.0	1.5		
	9400	TYKW	45	C	0713.4	0719.4	8.0	130.0	35.0		
	19600	BERN	45	C	0713.5	0713.6	4.0	90.0			
	113	POTS	42	SER	0713.5	0713.7	1.2	500.0	15.0		III
	6100	KISV	28	PRE	0713.5	0715.5	4.0	4.0			
	8400	BERN	45	C	0713.5	0719.4	5.9D	104.0			
	11800	BERN	45	C	0713.5	0719.4	5.9D	126.0			
	808	ONDR	46	C	0713.8	0714.0	1.8	121.0			
	1000	TYKW	30	PBI	0715.0		15.0	3.0	1.5		
	100	GORK	41	F	0716.3	0717.1	10.5	740.0			
	100	GORK			0716.3	0726.0		1050.0D			
	1000	TYKW	45	C	0717.0	0717.3	.6	18.0	4.0		
	3750	TYKW	45	C	0717.0	0719.4	4.0	12.0	3.0		
	234	POTS	4	S/F	0717.3	0717.7	1.2	140.0	5.0		III
	6100	KISV			0717.5	0718.0		13.0			
	6100	KISV	45	C	0717.5	0719.5	4.0	42.0			
	1000	TYKW	45	C	0718.0	0719.4	4.0	13.0	2.5		
	2950	GORK	1	S	0718.9	0719.4	1.8	6.7			
	9400	TYKW	29	PBI	0721.4		6.0	6.0	3.0		
	1000	TYKW	5	S	0722.0	0723.0	3.5	2.0	1.0		
	2000	TYKW	45	C	0722.0	0723.4	6.0	3.0	1.0		
	234	POTS	4	S/F	0737.9	0738.0	.3	200.0	35.0		III
	200	GORK	8	S	0737.9	0738.0	.5	145.0D			
	9400	TYKW	5	S	0748.0	0748.4	3.0	13.0	4.0		
	9100	GORK	1	S	0748.0	0748.4	2.0	18.0			
	9500	POTS	3	S	0748.2	0748.4	1.8	11.0			
	15000	KISV	1	S	0748.2	0748.5	1.0	15.0			
	2000	TYKW	8	S	0751.3	0751.4	.2	11.0	3.0		
	650	GORK	4	S/F	0751.6	0753.0	1.8	11.0			
	200	GORK	4	S/F	0751.7	0753.0	2.0	145.0D			
	204	IZMI	41	F	0752.0	0752.0	1.7	1200.0			
	234	POTS	4	S/F	0752.2	0752.9	1.2	400.0	12.0		III
	100	GORK	46	C	0752.3	0752.4	1.2	1050.0D			
	113	POTS	42	SER	0752.3	0752.4	5.7	175.0	3.0		III
	1000	TYKW	45	C	0752.6	0753.1	2.0	27.0	3.0		
	2000	TYKW	5	S	0752.7	0753.1	.7	6.0	2.0		
	950	GORK	2	S/F	0752.7	0753.1	1.3	20.0			
	1470	POTS	8	S	0752.8	0753.1	1.2	51.0			
	100	GORK			0753.0	0753.0		1050.0D			
	650	GORK	41	F	0807.3	0809.9	8.6	3.0			
	650	GORK			0807.3	0812.6		6.5			
	650	GORK			0807.3	0814.9		13.5			
	2840	PEKG	28	PRE	0812.0		18.0	4.0	2.5		
	3750	TYKW	28	PRE	0815.0	0830.0	15.0	3.0	1.5		
	113	POTS	42	SER	0820.0	0820.0	18.0	2500.0	25.0		III
	650	GORK	23	GRF	0824.7	0857.5	68.0D	9.5			
	6100	KISV	28	PRE	0827.0	0828.0	1.0	4.0			
	9500	POTS	45	C	0827.0	0832.5	31.0	177.0			
	1470	POTS	45	C	0827.0	0833.3	23.0	160.0			
	234	POTS	42	SER	0827.4	0838.4	11.0	4700.0	30.0		III
	9400	TYKW	5	S	0827.5	0827.7	1.5	31.0	7.0		
	19600	BERN	47	GB	0827.5	0832.9	12.0	507.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	35000	BERN	47	GB	0827.5	0832.9	9.0	905.0			
	8400	BERN	4	S/F	0827.5	0832.9	12.0	202.0			
	11800	BERN	4	S/F	0827.5	0832.9	12.0	327.0			
	9100	GORK	4	S/F	0827.5	0833.0	11.7	224.0			
	33	UPIC	48	C	0827.6		11.4				
	950	CORK	4	S/F	0827.6	0833.7	22.0	143.0			
	204	IZMI	45	C	0827.7	0838.0	12.0	1680.0			
	15000	KISV	28	PRE	0828.8	0829.0	1.0	48.0			
	200	GORK	46	C	0829.5	0831.0	5.5	140.0D			
	9400	TYKW	45	C	0829.5	0833.0	10.5	220.0	45.0		
	200	GORK			0829.5	0834.1		440.0D			
	15000	KISV			0829.7	0831.1		145.0			
	200	HIRA	46	C	0829.7	0832.6	31.0	6300.0	19.0		WL
	15000	KISV	45	C	0829.7	0833.3	10.0	300.0			
	536	ONDR	4	S/F	0829.8	0833.8	13.0	98.0	48.0		
	3750	TYKW	45	C	0830.0	0833.0	8.0	150.0	30.0		
	2000	TYKW	45	C	0830.0	0833.6	10.0	192.0	43.0		
	1000	TYKW	45	C	0830.0	0833.7	14.0	188.0	40.0		
	2840	PEKG	3	S	0830.0	0833.5	19.0	265.0	127.0		
	2650	DWIN	45	C	0830.0	0834.0	10.0	170.0	80.0		
	500	HIRA	45	C	0830.4	0832.6	16.0	128.0	30.0		ML
	3000	POTS	45	C	0830.5	0833.3	20.0	180.0			
	2950	GORK	4	S/F	0830.5	0833.6	8.5	168.0			
	650	GORK	46	C	0830.6	0833.8	11.4	240.0			
	100	HIRA	46	C	0830.6	0834.1	9.0	950.0	343.0		WL
	650	GORK			0830.6	0835.6		420.0			
	808	ONDR	4	S/F	0830.8	0833.1	15.0	120.0	56.0		
	200	GORK	46	C	0836.4	0836.6	2.0	500.0			
	200	GORK			0836.4	0838.1		1450.0			
	3750	TYKW	29	PBI	0838.0		20.0	6.0	3.0		
	2000	TYKW	29	PBI	0840.0		18.0	8.0	3.0		
	9400	TYKW	30	PBI	0840.0		18.0	12.0	8.0		
	1000	TYKW	30	PBI	0844.0		15.0	6.0	2.0		
	9400	TYKW	5	S	0845.5U	0846.3	1.5U	14.0	4.0U		
	200	HIRA	42	SER	0852.0	0919.9	35.0	980.0			WL
	1000	TYKW	8	S	0854.3	0854.4	.2	21.0	4.0		
	2840	PEKG	3	S	0856.0	0900.5	7.0	19.0	6.4		
	9400	TYKW	45	C	0859.0	0859.8	5.0D	87.0	20.0D		
	3750	TYKW	5	S	0859.0	0900.0U	1.0D	18.0D	7.0D		
	9500	POTS	4	S/F	0859.0	0859.8	11.0	66.0			
	15000	KISV	4	S/F	0859.0U	0900.0	1.5U	64.0			
	3000	POTS	3	S	0859.0	0900.0	2.0	18.0U			
	8400	BERN	3	S	0859.3	0859.9	9.0	82.0			
	9100	GORK	3	S	0859.3	0859.9	2.0	84.0			
	19600	BERN	3	S	0859.3	0859.9	9.0U	23.0			
	11800	BERN	3	S	0859.3	0859.9	9.0	84.0			
	2950	GORK	2	S/F	0859.3	0900.0	3.0	12.0			
	6100	KISV	3	S	0859.3	0900.0	3.0	28.0			
	234	POTS	4	S/F	0904.5	0904.5	.4	700.0	90.0		III
	234	POTS	42	SER	0916.7	0926.3	9.8	275000.0	900.0		III/V
	200	GORK	41	F	0917.5	0917.6	9.7	920.0			
	200	GORK			0917.5	0920.0		190.0			
	200	GORK			0917.5	0926.2		85.0			
	650	GORK	46	C	0919.6	0920.0	4.4	52.0			
	650	GORK			0919.6	0921.5		86.0			
	650	GORK			0919.6	0923.7		47.0			
	536	ONDR	41	F	0921.3	0921.6	9.3	31.0			
	6100	KISV	2	S/F	0925.8	0926.2	4.0	15.0			
	9100	GORK	4	S/F	0925.9	0926.2	2.3	87.0			
	15000	KISV	8	S	0925.9	0926.3	.6	115.0			
	15000	KISV	29	PBI	0925.9	0926.7	2.0	19.0			
	9400	TYKW	45	C	0926.0	0926.2	2.0D	74.0U	19.0D		
	2650	DWIN	1	S	0926.0	0926.0	1.0	60.0	30.0		
	9500	POTS	3	S	0926.0	0926.2	2.0	81.0U			
	8400	BERN	3	S	0926.0	0926.3	3.0	69.0			
	113	POTS	4	S/F	0926.0	0926.3	.4	200.0	20.0		III
	11800	BERN	3	S	0926.0	0926.3	3.0	142.0			
	19600	BERN	3	S	0926.0	0926.3	3.0	65.0			
	1470	POTS	3	S	0926.0	0926.4	3.0	7.0			
	11800	BERN	45	C	0940.0U	0957.3	60.0D	55.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	8400	BERN	45	C	0940.0U	1012.6	60.0D	38.0			
	650	GORK	46	C	0940.5	0941.3	2.4	10.5			
	650	GORK			0940.5	0942.5		8.0			
	200	GORK	8	S	0944.7	0945.0	.8	140.0			
	3000	POTS	20	GRF	0950.0	0957.5	70.0	12.0			
	9500	POTS	23	GRF	0955.0	1016.0	65.0	30.0			
	19600	BERN	45	C	0956.0	1015.5	50.0U	36.0			
	113	POTS	42	SER	0957.2	0957.5	20.0	500.0	4.0		III
	15000	KISV	8	S	0957.3	0957.4	.4	31.0			
	6100	KISV	20	GRF	1002.0	1015.0	30.0	9.0			
	15000	KISV			1006.0	1007.7		35.0			
	15000	KISV			1006.0	1011.2		27.0			
	15000	KISV	46	C	1006.0	1015.7	17.0	41.0			
	15000	KISV			1006.0	1016.2		39.0			
	1470	POTS	20	GRF	1008.0	1016.0	22.0	5.0			
	6100	KISV	1	S	1010.9	1011.2	.7	9.0			
	6100	KISV	2	S/F	1012.2	1012.6	2.0	9.0			
	536	ONDR	40	F	1012.7	1017.8	13.0	25.0	16.0		
	6100	KISV	1	S	1021.8	1022.2	1.0	5.0			
	113	POTS	42	SER	1042.0	1042.0	94.7	200.0	1.0		III
	3000	POTS	3	S	1122.3	1123.2	3.7	15.0			
	1470	POTS	1	S	1123.2	1123.8	1.8	3.0			
	204	IZMI	41	F	1123.3	1123.5	1.6	600.0			
	234	POTS	4	S/F	1123.4	1123.7	.9	150.0	5.0		III
	536	ONDR	8	S	1123.9	1123.9	.3	14.0			
	15000	KISV	2	S/F	1124.8	1125.4	1.0	73.0			
	8400	BERN	3	S	1125.0	1125.1	1.0	18.0			
	9500	POTS	3	S	1125.0	1125.3	1.5	17.0			
	19600	BERN	3	S	1125.0	1125.3	1.0	42.0			
	11800	BERN	3	S	1125.0	1125.3	1.0	12.0			
	6100	KISV	1	S	1125.0	1125.5	2.5	5.0			
	113	POTS	42	SER	1140.2	1159.8	21.0	1100.0	10.0		III
	2800	OTTA	1	S	1147.0	1147.8	2.0	6.6	2.2		
	6100	KISV	1	S	1147.4	1147.8	1.0	5.0			
	127	TORN	7	C	1152.0	1152.7	2.5	80.0	40.0		
	9400	HUAN	3	S	1154.6	1156.3	2.5	26.0	13.0		0
	8800	ATHN	47	GB	1154.8	1203.1	9.2	52.0			QL=6 ST=2 TYP=5
	6100	KISV	2	S/F	1154.9	1156.0	2.0	13.0			
	11800	BERN	3	S	1155.0	1200.1	13.0	76.0			
	8400	BERN	3	S	1155.0	1200.3	13.0	39.0			
	1415	ATHN	4	S/F	1155.0	1203.1	12.1	17.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1155.0	1203.1	12.1	13.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1155.0	1203.1	12.1	23.0			QL=6 ST=2 TYP=3
	2800	OTTA	1	S	1155.5	1155.9	1.2	6.0	3.2		
	9500	POTS	3	S	1159.0	1200.4	5.0	33.0			
	1470	POTS	3	S	1159.0U	1200.4	4.0U	11.0			
	19600	BERN	3	S	1159.5	1200.1	13.0	58.0			
	2800	OTTA	1	S	1159.5	1200.2	5.0	6.0	3.0		
	35000	BERN	3	S	1159.5	1200.2U	13.0U	52.0U			
	6100	KISV	2	S/F	1159.5	1200.4	2.0	11.0			
	9400	HUAN	4	S/F	1159.7	1200.5	3.1	27.8	9.3		R
	8800	SGMR	8	S	1159.8	1200.1	.8	33.0			QL=6 ST=2 TYP=3
	15400	SGMR	47	GB	1159.8	1200.1	.8	76.0			QL=6 ST=2 TYP=5
	15000	KISV	4	S/F	1159.8	1200.2	1.5	84.0			
	610	SGMR	8	S	1200.3	1200.8	.7	30.0			QL=6 ST=2 TYP=3
	8400	BERN	3	S	1225.0	1232.1	16.0	105.0			
	19600	BERN	3	S	1225.0	1232.1	16.0U	64.0			
	11800	BERN	3	S	1225.0	1232.1	16.0	130.0			
	8800	SGMR	8	S	1225.3	1225.8	.7	20.0			QL=6 ST=2 TYP=3
	1470	POTS	29	PBI	1231.0	1232.1	14.0	7.0			
	3000	POTS	29	PBI	1231.0	1233.1	14.0	15.0			
	8800	ATHN	47	GB	1231.3	1232.3	13.5	96.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	1231.3	1233.3	13.5	28.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1231.3	1234.1	13.5	21.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1231.3	1234.1	13.2	17.0			QL=6 ST=2 TYP=3
	9500	POTS	29	PBI	1231.5	1232.1	11.0	84.0			
	8800	SGMR	47	GB	1231.5	1232.1	6.8	110.0			QL=6 ST=2 TYP=5
	9400	HUAN	3	S	1231.5	1232.5	2.4	105.7	.3		R
	2800	OTTA	4	S/F	1231.5	1233.0	10.0	10.6	3.6		
	15400	SGMR	47	GB	1231.6	1232.1	1.7	93.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	15000	KISV	4 S/F	1231.6	1232.2	3.0	114.0			
	4995	SGMR	4 S/F	1231.6	1233.0	2.7	30.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1231.6	1233.8	2.7	46.0			QL=6 ST=2 TYP=3
	113	POTS	42 SER	1231.8	1232.4	7.9	900.0	90.0		III
	610	SGMR	4 S/F	1232.0	1234.0	2.3	20.0			QL=6 ST=2 TYP=3
	245	SGMR	8 S	1232.1	1232.3	.4	58.0			QL=6 ST=2 TYP=3
	9400	HUAN	30 PBI	1233.9	1233.9	23.5	16.7	5.0		R
	9400	HUAN	1 S	1236.6	1238.4	2.9	12.0	4.6		0
	2800	OTTA	240 R	1245.0	1315.0	30.0	3.4	1.7		
	113	POTS	42 SER	1308.7	1317.2	15.0	400.0	2.0		III
	15000	KISV	2 S/F	1323.2	1323.4	1.0	17.0			
	9500	POTS	3 S	1348.0	1349.0	5.0	26.0			
	11800	BERN	3 S	1348.0	1349.0	5.0	22.0			
	8400	BERN	3 S	1348.0	1349.1	5.0	35.0			
	9400	HUAN	3 S	1348.1	1349.2	3.1	26.0	12.7		R
	6100	KISV	2 S/F	1348.5	1349.2	4.0	9.0			
	8800	SGMR	8 S	1348.6	1349.0	1.2	43.0			QL=6 ST=2 TYP=3
	15000	KISV	2 S/F	1348.6	1349.2	1.5	16.0			
	15400	SGMR	8 S	1349.0	1349.3	1.1	26.0			QL=6 ST=2 TYP=3
	2800	OTTA	240AR	1350.0	1355.0	5.0	3.4	1.7		
	9400	HUAN	29 PBI	1351.2	1351.2	10.4	7.4	2.6		R
	2800	OTTA	1 S	1352.0	1353.0	2.0	3.2	1.5		
	8800	SGMR	4 S/F	1352.1	1353.1	6.2	20.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1352.8	1355.1	5.8	44.0			QL=6 ST=2 TYP=3
	4995	SGMR	4 S/F	1353.8	1354.1	4.2	11.0			QL=6 ST=2 TYP=3
	113	POTS	42 SER	1413.4	1439.5	27.0	1200.0	10.0		III
	9500	POTS	22 GRF	1422.0	1429.0	21.0	16.0			
	9400	HUAN	23 GRF	1423.1	1508.6	77.5	16.7	7.7		0
	234	POTS	41 F	1423.5	1424.1	1.5	330.0	12.0		III
	2800	OTTA	1 S	1424.0	1424.0	6.0	3.4	1.2		
	1470	POTS	29 PBI	1424.0	1424.5	8.0	6.0			
	8800	SGMR	4 S/F	1424.0	1425.6	2.1	16.0			QL=6 ST=2 TYP=3
	245	SGMR	8 S	1424.1	1424.1	1.2	300.0			QL=6 ST=2 TYP=3
	245	SGMR	8 S	1434.1	1434.6	1.0	130.0			QL=6 ST=2 TYP=3
	8800	SGMR	8 S	1436.1	1436.6	1.0	18.0			QL=6 ST=3 TYP=3
	610	SGMR	47 GB	1454.8	1455.1	1.0	86.0			QL=6 ST=2 TYP=5
	9500	POTS	22 GRF	1502.0	1510.0	13.0	18.0			
	610	SGMR	47 GB	1522.8	1525.0	6.2	110.0			QL=6 ST=2 TYP=5
	9400	HUAN	1 S	1523.9	1526.5	4.5	9.3	5.6		0
	4995	SGMR	8 S	1525.8	1525.8	.2	13.0			QL=6 ST=2 TYP=3
	8800	SGMR	8 S	1526.3	1526.5	.2	18.0			QL=6 ST=2 TYP=3
	113	POTS	4 S/F	1539.1	1539.3	.9	400.0	100.0		III
	2695	ATHN	4 S/F	1602.1	1604.6	6.2	18.0			QL=6 ST=2 TYP=3
	4995	ATHN	4 S/F	1602.1	1604.6	8.4	45.0			QL=6 ST=2 TYP=3
	1415	ATHN	4 S/F	1603.1	1604.6	8.5	20.0			QL=6 ST=2 TYP=3
	8400	BERN	45 C	1604.0	1605.0	40.0D	40.0U			
	11800	BERN	45 C	1604.0	1605.0	40.0D	35.0U			
	2800	OTTA	240AR	1604.0	1625.0	21.0	8.2	4.1		
	2800	OTTA	3 S	1604.2	1604.8	3.0	12.6	4.2		
	9400	HUAN	3 S	1604.2	1605.0	2.3	38.9	19.7		R
	8800	ATHN	47 GB	1604.3	1604.6	2.8	55.0			QL=6 ST=2 TYP=5
	1415	ATHN	4 S/F	1608.3	1617.6	17.8	33.0			QL=6 ST=2 TYP=3
	2695	ATHN	4 S/F	1608.3	1617.6	17.8	11.0			QL=6 ST=2 TYP=3
	2800	OTTA	40 F	1610.0	1617.0	14.0	6.6			
	4995	ATHN	4 S/F	1610.5	1617.6	15.6	28.0			QL=6 ST=2 TYP=3
	9400	HUAN	22 GRF	1611.3	1621.5	73.8	29.7	16.3		0
	8800	ATHN	4 S/F	1612.8	1618.6	13.3	34.0			QL=6 ST=2 TYP=3
	2800	OTTA	23 GRF	1635.0	1730.0	115.0	9.0			
	8800	PALE	4 S/F	1641.8	1642.6	2.7	30.0			QL=2 ST=2 TYP=3
	15400	PALE	4 S/F	1642.1	1642.8	2.4	27.0			QL=2 ST=2 TYP=3
	2800	OTTA	1 S	1642.5	1645.0	4.5	5.2	3.0		
	245	SGMR	49 GB	1643.1	1643.5	.9	2399.0			QL=6 ST=2 TYP=6
	245	PALE	49 GB	1643.3	1643.6	1.7	2100.0			QL=2 ST=2 TYP=6
	2695	PENT	1 S	1702.0	1702.5	4.0	7.2	3.3		
	8400	BERN	3 S	1702.0U	1702.5	4.0U	30.0U			
	11800	BERN	3 S	1702.0U	1702.5	4.0U	30.0U			
	8800	SGMR	8 S	1702.3	1702.5	.5	26.0			QL=6 ST=2 TYP=3
	4995	SGMR	8 S	1703.3	1703.5	.3	13.0			QL=6 ST=2 TYP=3
	2800	OTTA	1 S	1708.0	1709.0	2.0	5.2	3.5		
	15400	PALE	4 S/F	1708.1	1708.3	3.2	30.0			QL=2 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	4995	PALE	8	S	1708.3	1708.6	1.3	20.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	1708.3	1708.6	1.5	26.0			QL=2 ST=2 TYP=3
	1415	ATHN	4	S/F	1714.5	1720.6	11.5	33.0			QL=6 ST=2 TYP=3
	2695	ATHN	47	GB	1715.5	1727.0	16.3	53.0			QL=6 ST=2 TYP=5
	610	PALE	49	GB	1716.6	1722.3	11.7	670.0			QL=2 ST=2 TYP=6
	610	SGMR	49	GB	1716.6	1722.3	8.5	600.0			QL=6 ST=2 TYP=6
	9400	HUAN	20	GRF	1726.2	1730.8	11.0	9.3	4.6		0
	610	SGMR	47	GB	1749.3	1749.3	4.0	100.0			QL=6 ST=2 TYP=5
	9400	HUAN	20	GRF	1754.4	1804.9	22.8	13.0	4.4		0
	610	SGMR	47	GB	1800.5	1802.3	3.6	110.0			QL=6 ST=2 TYP=5
	2800	OTTA	1	S	1801.5	1802.5	3.0	3.8	1.9		
	610	SGMR	47	GB	1814.0	1816.1	5.3	310.0			QL=6 ST=2 TYP=5
	2800	OTTA	1	S	1852.5	1853.3	2.0	3.2	1.6		
	9400	HUAN	21	GRF	1853.0	1906.8	32.1	11.1	5.3		0
	9400	HUAN	4	S/F	1859.4	1902.3	6.2	31.5	16.7		R
	2800	OTTA	4	S/F	1859.5	1901.0	3.5	23.0	15.4		
	4995	SGMR	4	S/F	1859.6	1902.1	4.5	38.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1859.6	1902.1	7.5	49.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1900.1	1902.1	3.9	40.0			QL=6 ST=2 TYP=3
	2800	OTTA	29	PBI	1903.0	1903.0	10.0	6.6	2.2		
	610	SGMR	47	GB	1918.6	1919.1	.7	52.0			QL=6 ST=2 TYP=5
	2800	OTTA	23	GRF	1935.0		370.0	17.4			
	9400	HUAN	21	GRF	1945.5	2037.7	80.0	33.4	12.0		4
	100	HIRA	48	C	1948.3		9.3	10000.0D	1480.0D		
	8800	SGMR	47	GB	1948.6	1949.0	2.7	119.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1948.6	1949.0	2.7	380.0			QL=6 ST=2 TYP=5
	9400	HUAN	45	C	1948.6	1949.2	2.8	139.0	65.1		R
	200	HIRA	46	C	1948.7	1949.1	4.0	18000.0U	527.0U		ML SUNRISE
	4995	SGMR	8	S	1948.8	1949.0	1.8	42.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1948.8	1949.1	3.0	400.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1948.8	1950.3	7.7	139.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1948.8	1950.3	4.3	100.0			QL=6 ST=2 TYP=5
	2800	OTTA	4	S/F	1949.0	1950.5	10.0	47.0	11.8		
	410	SGMR	47	GB	1949.5	1950.0	2.5	51.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1949.6	1950.5	1.2	56.0			QL=6 ST=2 TYP=5
	9400	HUAN	4	S/F	2000.6	2002.2	5.8	30.6	14.8		0
	8800	SGMR	49	GB	2002.0	2002.1	22.3	39.0			QL=6 ST=2 TYP=6
	15400	SGMR	4	S/F	2002.0	2002.5	22.3	27.0			QL=6 ST=2 TYP=3
	4995	SGMR	20	GRF	2006.3	2012.1	18.0	44.0			QL=6 ST=2 TYP=2
	2800	OTTA	46F	C	2007.0	2015.8	40.0	175.0	30.0		
	9400	HUAN	45	C	2012.0	2014.7U	15.7	170.6	81.6		R
	2695	SGMR	47	GB	2012.0	2015.6	12.3	200.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	2013.6	2015.3	6.0	200.0			QL=6 ST=2 TYP=5
	100	HIRA	42	SER	2015.0	2027.7	32.0	1700.0			ML
	200	HIRA	42	SER	2015.5	2028.2	23.7	600.0			0
	610	SGMR	4	S/F	2022.1	2022.6	2.2	20.0			QL=6 ST=2 TYP=3
	4995	SGMR	47	GB	2024.3	2024.5	14.8	90.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	2024.3	2024.5	14.8	200.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	2024.3	2024.5	13.3	89.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	2024.3	2024.6	5.7	51.0			QL=6 ST=2 TYP=5
	1415	SGMR	20	GRF	2024.3	2024.6	10.0	22.0			QL=6 ST=2 TYP=2
	610	SGMR	8	S	2024.6	2025.6	1.0D	21.0			QL=6 ST=2 TYP=3
	410	SGMR	49	GB	2028.8	2028.8	.3	3899.0			QL=6 ST=2 TYP=6
	2800	OTTA	45	C	2049.5	2049.7	2.5	10.2	5.1		
	3750	TYKW	21	GRF	2059.0E	2130.0	190.0D	17.0	9.0D		
	9400	TYKW	21	GRF	2100.0E	2100.0U	190.0D	38.0D	19.0D		
	2000	TYKW	21	GRF	2100.0E	2130.0	190.0D	9.0	5.0D		
	1000	TYKW	5	S	2103.5	2103.9	1.0	28.0	6.0		
	2800	OTTA	3	S	2104.0	2107.8	7.0	59.0	20.0		
	3750	TYKW	5	S	2105.0	2107.8	9.0	110.0	28.0		
	1000	TYKW	45	C	2106.0	2107.7	5.0	21.0	5.0		
	4995	SGMR	47	GB	2106.1	2107.6	5.2	200.0			QL=6 ST=2 TYP=5
	200	HIRA	46	C	2106.3	2107.5	2.6	270.0	50.0		0
	8800	SGMR	47	GB	2106.3	2107.6	5.0	340.0			QL=6 ST=2 TYP=5
	100	HIRA	46	C	2106.7	2107.6	1.4	570.0	152.0		WL
	17000	NOBE	3	S	2106.7	2107.8	7.0	210.0			R
	15400	SGMR	47	GB	2106.8	2107.8	4.0	270.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	2107.0E	2107.6	5.0D	420.0	110.0D		
	208	VORO	4	S/F	2107.0	2108.0	2.0	99.0			
	500	HIRA	5	S	2107.0	2108.0	3.0	4.0	3.0		WR

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	1415	SGMR	8	S	2107.0	2108.1	2.0	30.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	2107.3	2107.8	1.5	69.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	2107.5	2107.6	.5	42.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	2107.8	2108.6	.8D	18.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	2108.0E	2108.0U	3.0D	23.0D	7.0D		
	9400	TYKW	29	PBI	2112.0		12.0	14.0	5.0		
	9400	TYKW	28	PRE	2129.0	2136.3	9.5	47.0	11.0		
	3750	TYKW	45	C	2135.0	2139.8	11.0	160.0	44.0		
	2000	TYKW	45	C	2135.0	2141.5	10.0	55.0	13.0		
	2800	OTTA	45	C	2135.5	2141.0	9.0	76.0	29.2		
	17000	NOBE	4	S/F	2135.6	2141.4	11.0	460.0			R
	4995	SGMR	47	GB	2136.3	2138.8	7.5	34.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	2136.5	2136.8	7.3	21.0			QL=6 ST=2 TYP=5
	200	HIRA	46	C	2137.6	2140.0	10.0	160.0	18.0		0
	1000	TYKW	45	C	2138.0	2141.7	10.0	50.0	16.0		
	9400	TYKW	47	GB	2138.5	2141.3	9.5	710.0	170.0		
	100	HIRA	42	SER	2138.6	2139.3	4.0	690.0			WL
	2695	SGMR	47	GB	2138.8	2141.3	3.3	86.0			QL=6 ST=2 TYP=5
	15400	SGMR	49	GB	2139.0	2141.3	5.0	510.0			QL=6 ST=2 TYP=6
	1415	SGMR	47	GB	2139.1	2141.5	8.4	69.0			QL=6 ST=2 TYP=5
	500	HIRA	4	S/F	2139.3	2141.6	9.0	20.0	10.0		WR
	610	SGMR	47	GB	2139.6	2141.6	5.2	54.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2139.6	2141.6	2.2	200.0			QL=6 ST=2 TYP=5
	208	VORO	4	S/F	2140.0	2142.0	2.0	200.0D			
	410	SGMR	47	GB	2141.1	2141.3	.7	74.0			QL=6 ST=2 TYP=5
	2000	TYKW	29	PBI	2145.0		8.0	6.0	3.0		
	3750	TYKW	29	PBI	2146.0		13.0	6.0	3.0		
	9400	TYKW	30	PBI	2148.0		10.0	4.0	2.0		
	1000	TYKW	29	PBI	2148.0		12.0	6.0	3.0		
	9400	TYKW	5	S	2150.0	2151.4	3.0	14.0	4.0		
	2000	TYKW	5	S	2157.0	2157.7	2.0	2.0	.7		
	9400	TYKW	5	S	2201.0	2203.0U	9.0U	7.0U	3.0U		
	2800	OTTA	21	GRF	2206.0	2215.0	35.0	15.4	5.2		
	3750	TYKW	45	C	2208.0	2215.0	12.0	17.0	10.0		
	2000	TYKW	45	C	2209.0	2215.2	15.0	6.0	3.0		
	2800	OTTA	1	S	2210.0	2210.3	2.0	8.6	4.3		
	1000	TYKW	42	SER	2211.5	2211.7	2.5	5.0	.5		
	1000	TYKW	21	GRF	2215.0	2300.0	130.0	4.0	2.0		
	9400	TYKW	5	S	2217.0	2217.6	3.0	15.0	4.0		
	3750	TYKW	29	PBI	2220.0		20.0	7.0	3.5		
	9400	TYKW	29	PBI	2220.0		15.0	4.0	2.0		
	9400	TYKW	28	PRE	2238.0	2241.0	9.0	9.0	6.0		
	9400	TYKW	5	S	2245.0	2245.7	1.0	14.0	4.0		
	9400	TYKW	45	C	2247.0	2248.2	7.0	49.0	20.0		
	2000	TYKW	45	C	2250.0	2300.0	15.0	3.0	1.0		
	9400	TYKW	30	PBI	2254.0		16.0	10.0	5.0		
	9400	TYKW	5	S	2259.0U	2259.7	7.0U	8.0	3.0		
	17000	NOBE	28	PRE	2311.3	2313.7	7.7	29.0			R
	2000	TYKW	28	PRE	2312.0	2313.8	7.0	7.0	2.5		
	3750	TYKW	45	C	2312.0	2320.3	18.0	360.0	30.0		
	2695	PENT	4	S/F	2312.0	2320.3	18.0	187.0	30.0		
	9400	TYKW	28	PRE	2313.0	2313.6	5.5	56.0	15.0		
	4995	SGMR	8	S	2313.1	2313.6	1.0	47.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2313.5	2313.6	.3	39.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2313.5	2313.8	.3D	40.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	2316.5	2317.1	1.5	15.0	6.0		
	208	VORO	46	C	2318.0	2318.0	10.0	200.0D			
	9400	TYKW	47	GB	2318.5	2320.4	10.5	1300.0	190.0		
	500	HIRA	4	S/F	2319.0	2320.0U	10.0	50.0U	25.0U		WR
	2000	TYKW	45	C	2319.0	2320.5	15.0	145.0	22.0		
	1000	TYKW	5	S	2319.0	2320.7	12.0	136.0	37.0		
	100	HIRA	46	C	2319.0		9.3	10000.0D	686.0D		
	35000	NAGO	5	S	2319.0	2319.0	4.0	240.0			
	200	HIRA	46	C	2319.0	2319.5	12.4	3900.0	160.0		0
	17000	NOBE	45	C	2319.0	2319.6	12.0	978.0			R
	245	SGMR	4	S/F	2319.1	2319.5	5.7	1399.0			QL=6 ST=2 TYP=3
	610	SGMR	47	GB	2319.3	2321.0	8.3	130.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	2319.6	2320.5	4.0	440.0			QL=6 ST=2 TYP=5
	35000	NAGO	5	S	2325.0	2325.0	2.0	28.0			
	9400	TYKW	31	ABS	2329.0	2335.0	32.0	-10.0	-5.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	3750	TYKW	31	ABS	2330.0	2335.0	22.0	-3.0	-1.5		
	1000	TYKW	29	PBI	2331.0		14.0	4.0	1.5		
11	33	UPIC	43	NS	0405.0		865.0D				
	260	ONDR	44	NS	0546.0E	1413.0U	527.0D				
	245	LEAR	44	NS	0711.0E	0729.6	145.0D	20.0			QL=5 ST=2 TYP=1
	245	SGMR	43	NS	0940.0	1110.0	858.0D	1300.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0940.0	1354.6	858.0D	46.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	1929.0E	0045.0	865.0D	17.0	10.0		ML
	100	HIRA	43	NS	1945.0	0836.0	850.0D	350.0	135.0		SL
	208	VORO	44	NS	2100.0E		360.0D		3.0		
	245	LEAR	43	NS	2322.0	0018.1	615.0D	1199.0			QL=6 ST=2 TYP=1
	9400	TYKW	5	S	0012.5	0015.0	8.5	6.0	3.0		
	2695	PENT	3	S	0015.5	0016.7	6.0	20.0	7.0		
	9400	TYKW	31	ABS	0021.0	0028.0	10.0	-7.0	-4.0		
	1000	TYKW	5	S	0029.0	0030.2	3.0	1.5	.5		
	2000	TYKW	5	S	0029.3	0030.1	2.5	3.0	1.0		
	3750	TYKW	5	S	0029.5	0030.1	2.5	3.0	1.0		
	9400	TYKW	45	C	0033.0	0033.5	2.0	5.0	1.5		
	3750	TYKW	5	S	0045.0	0100.2	25.0	3.0	1.0		
	9400	TYKW	28	PRE	0048.0	0051.5	3.5	5.0	2.5		
	2695	PENT	1	S	0048.3	0049.0	2.5	7.6	3.8		
	9395	PEKG	3	S	0049.0	0052.3	7.0	17.0	5.2		
	9400	TYKW	45	C	0051.5	0052.0	3.5	26.0	12.0		
	17000	NOBE	7	C	0051.9	0052.1	2.0	29.0			R
	2695	PENT	46F	C	0053.5	0059.8	12.0	85.0	18.8		
	9400	TYKW	30	PBI	0055.0		21.0	7.0	3.0		
	9395	PEKG	3	S	0059.0	0104.0	10.0	29.0	8.9		
	9400	TYKW	5	S	0103.5	0103.8	3.0	29.0	10.0		
	3750	TYKW	5	S	0112.0	0112.7	2.0	2.0	.7		
	9400	TYKW	5	S	0112.5	0113.0	2.5	4.0	1.5		
	2695	PENT	31	ABS	0113.0	0132.0	35.0	-7.6	-4.0		
	2840	PEKG			0123.0	0126.5					
	9395	PEKG			0123.0	0126.5					
	2840	PEKG	45	C	0123.0	0128.0	19.0	42.0	16.0		
	9395	PEKG	45	C	0123.0	0128.0	18.0	121.0	14.0		
	2000	TYKW	45	C	0125.5	0126.3	7.5	11.0	3.0		
	3750	TYKW	45	C	0125.5	0126.3	6.5	56.0	17.0		
	9400	TYKW	45	C	0125.5	0126.3	7.5	130.0	30.0		
	1000	TYKW			0125.5	0126.3		9.0			
	1000	TYKW	45	C	0125.5	0131.7	7.5	9.0	2.5		
	17000	NOBE	7	C	0125.6	0126.3	8.0	50.0			R
	100	HIRA	46	C	0125.7	0126.0	1.1	2800.0	715.0		WL
	9400	TYKW	31	ABS	0130.0	0258.0	144.0	-13.0	-6.0		
	208	VORO	41	F	0131.0	0131.0	3.0	163.0D			
	208	VORO			0131.0	0133.0		200.0D			
	3750	TYKW	31	ABS	0132.0	0155.0	78.0	-6.0	-3.0		
	1000	TYKW	31	ABS	0133.0	0234.0	100.0	-3.0	-1.5		
	2000	TYKW	31	ABS	0133.0	0234.0	120.0	-6.0	-2.5		
	9400	TYKW	45	C	0147.0	0148.7	2.5	4.0	1.5		
	9395	PEKG	3	S	0156.0	0207.6	22.0	297.0	18.0		
	2000	TYKW	28	PRE	0157.0	0204.0	8.5	2.0	1.0		
	3750	TYKW	28	PRE	0158.0	0203.6	7.0	3.0	1.5		
	9400	TYKW	28	PRE	0159.0	0201.2	6.5	8.0	6.0		
	2840	PEKG	45	C	0204.0	0207.8	12.0	103.0	18.1		
	3750	TYKW	45	C	0205.0	0207.7	10.0	130.0	25.0		
	9400	TYKW	45	C	0205.5	0207.7	11.5	320.0	50.0		
	2000	TYKW	5	S	0205.5	0207.7	5.0	39.0	13.0		
	17000	NOBE	3	S	0205.9	0207.8	8.0	161.0			R
	1000	TYKW	45	C	0206.0	0207.7	8.0	36.0	10.0		
	100	HIRA	42	SER	0206.3	0207.6	11.3	1700.0			WL
	200	HIRA	46	C	0206.5	0208.2	8.0	36.0	7.0		ML
	500	HIRA	4	S/F	0206.7	0207.7	4.0	13.0	7.0		WR
	35000	NAGO	5	S	0207.0	0208.0	2.0	60.0			
	208	VORO	4	S/F	0210.0	0210.0	2.0	37.0			
	2000	TYKW	30	PBI	0210.5		21.0	6.0	3.0		
	2000	TYKW	45	C	0211.0	0211.2	3.0	4.0	1.5		
	1000	TYKW	29	PBI	0214.0		10.0	3.0	1.0		
	3750	TYKW	30	PBI	0215.0		17.0	7.0	3.5		
	2840	PEKG	29	PBI	0216.0		18.0	11.0	1.8		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	9400	TYKW	30	PBI	0217.0		30.0	10.0	5.0		
	9400	TYKW	45	C	0219.0	0221.1	14.0	11.0	3.0		
	3750	TYKW	5	S	0220.5	0221.0	4.0	4.0	1.5		
	9395	PEKG			0233.0	0234.7					
	9395	PEKG			0233.0	0236.5	10.0	27.0	7.2		
	9400	TYKW	45	C	0234.0	0234.7	9.0	34.0	9.0		
	100	HIRA	46	C	0234.5	0234.5	1.1	8400.0	2510.0		WL
	3750	TYKW	45	C	0234.5	0234.7	2.5	3.0	1.0		
	8800	PALE	4	S/F	0234.6	0234.6	4.5	43.0			QL=2 ST=2 TYP=3
	15400	PALE	4	S/F	0234.6	0234.6	4.9	43.0			QL=2 ST=2 TYP=3
	9400	TYKW	45	C	0300.0	0308.0	18.0U	10.0	3.0D		
	3750	TYKW	21	GRF	0305.0	0455.0	370.0	8.0	4.0U		RAIN
	9100	GORK	23	GRF	0309.0E						
	650	GORK			0310.3	0313.7		168.0			
	650	GORK			0310.3	0315.8		5.0			
	650	GORK	21	GRF	0318.0E	0318.0	384.0D	11.0			
	2950	GORK	21	GRF	0318.0E	0724.0	384.0D	31.6			
	1000	TYKW	21	GRF	0320.0	0840.0	350.0D	4.0	2.0D		
	1000	TYKW	5	S	0322.0	0323.0	3.0	1.0	.5		
	9400	TYKW	28	PRE	0325.0U	0328.0	3.0U	7.0	3.0		RAIN
	200	HIRA	42	SER	0326.9	0331.6	14.0	65.0			ML
	9400	TYKW	5	S	0328.0	0329.3	2.0	37.0	15.0		
	9100	GORK	1	S	0328.0	0328.3	.9	28.0	14.0		
	17000	NOBE	1	S	0328.1	0328.3	.8	20.0			R
	9400	TYKW	30	PBI	0330.0		20.0	10.0	5.0		
	9400	TYKW	5	S	0337.8	0338.2	1.2	17.0	8.0		
	17000	NOBE	1	S	0337.8	0338.2	10.0	40.0			R
	9100	GORK	1	S	0337.9	0340.2	2.3U	17.0	8.0		
	9400	TYKW	29	PBI	0339.0		10.0	6.0	3.0		
	2000	TYKW	21	GRF	0340.0	0840.0	340.0D	10.0	5.0D		
	2000	TYKW	5	S	0341.0	0341.4	1.5	1.5	.5		
	1000	TYKW	5	S	0341.0	0341.5	1.5	1.0	.3		
	1000	TYKW	45	C	0400.0	0402.9	4.0	12.0	2.0		
	2000	TYKW	45	C	0400.0	0407.6	13.0	18.0	3.0		
	3750	TYKW	45	C	0400.0	0407.6	13.0	66.0	17.0		
	6100	KISV			0400.3	0402.5		25.0			
	6100	KISV			0400.3	0405.3		98.0			
	6100	KISV	46	C	0400.3	0407.5	12.0	106.0			
	6100	KISV			0400.3	0410.7		17.0			
	9400	TYKW	45	C	0400.5	0407.5	13.0	169.0	35.0		
	8800	ATHN	47	GB	0401.6	0405.3	11.5	139.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	0401.6	0407.5	11.5	110.0			QL=6 ST=2 TYP=5
	9100	GORK	46	C	0401.7	0405.2	10.5	170.0			
	9100	GORK			0401.7	0407.4		188.0			
	4995	PALE	47	GB	0402.0	0402.6	8.6	39.0			QL=2 ST=2 TYP=5
	2695	ATHN	4	S/F	0402.0	0405.3	9.3	20.0			QL=6 ST=2 TYP=3
	17000	NOBE	7	C	0402.0	0405.4	11.0	83.0			R
	8800	PALE	47	GB	0402.5	0402.6	7.5	31.0			QL=2 ST=2 TYP=5
	8800	MANI	49	GB	0402.8	0421.0	26.2	590.0			QL=6 ST=2 TYP=6
	2695	MANI	4	S/F	0402.8	0421.0	21.0	49.0			QL=6 ST=2 TYP=3
	4995	MANI	47	GB	0402.8	0421.0	27.7	300.0			QL=6 ST=2 TYP=5
	35000	NAGO	21	GRF	0403.0	0407.0	24.0	25.0			
	650	GORK	45	C	0404.5	0405.4	8.3	3.0			
	2950	GORK	1	S	0404.5	0405.5	1.9	18.0			
	650	GORK			0404.5	0407.4		10.0			
	650	GORK			0404.5	0411.1		3.0			
	1000	TYKW	45	C	0404.7	0407.6	9.0	19.0	2.0		
	950	GORK	1	S	0404.9	0407.7	5.0	15.0			
	15400	PALE	47	GB	0405.0	0405.3	4.5	83.0			QL=2 ST=2 TYP=5
	200	HIRA	42	SER	0405.0	0419.6	19.7	2200.0			0
	2695	PALE	4	S/F	0405.3	0405.6	3.3	24.0			QL=2 ST=2 TYP=3
	2840	PEKG	5	S	0406.0	0407.5	6.0	28.0	5.1		
	9395	PEKG	5	S	0406.0	0407.6	3.0	107.0	26.0		
	200	GORK	41	F	0406.8	0410.8	20.0	150.0D			
	200	GORK			0406.8	0419.7		150.0D			
	2950	GORK	3	S	0407.0	0407.5	2.0	25.0			
	100	HIRA	42	SER	0407.0	0419.7	17.7	7000.0			WL
	100	GORK	8	S	0407.8	0407.8U	.3	100.0D			
	3750	TYKW	30	PBI	0413.0		26.0	2.0	1.0		
	3750	TYKW	5	S	0414.0	0414.6	2.0	1.5	.5		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	9400	TYKW	5	S	0414.0	0415.0	2.5	4.0	2.0		
	4995	ATHN	47	GB	0414.6	0418.6	10.5	169.0			QL=6 ST=2 TYP=5
	8800	ATHN	47	GB	0414.6	0418.6	10.7	400.0			QL=6 ST=2 TYP=5
	3750	TYKW	45	C	0417.0	0419.7	12.0	101.0	11.0		
	9400	TYKW	47	GB	0417.0	0419.7	13.0	515.0	45.0		
	2695	ATHN	4	S/F	0417.1	0418.6	4.5	46.0			QL=6 ST=2 TYP=3
	9100	GORK	3	S	0417.4	0419.5	9.1	517.0			
	17000	NOBE	3	S	0417.9	0417.9	11.0	374.0			R
	1415	ATHN	4	S/F	0418.0	0418.6	3.3	31.0			QL=6 ST=2 TYP=3
	2840	PEKG	3	S	0418.0	0419.6	6.0	54.0	8.5		
	15000	KISV	4	S/F	0418.5	0419.5U	8.0	315.0D			
	2000	TYKW	5	S	0419.0	0419.7	4.0	33.0	9.0		
	1000	TYKW	5	S	0419.0	0419.9	8.0	38.0	7.0		
	4995	PALE	47	GB	0419.0	0419.8	3.0	189.0			QL=2 ST=2 TYP=5
	15400	PALE	47	GB	0419.1	0419.6	2.9	400.0			QL=2 ST=2 TYP=5
	2950	GORK	3	S	0419.1	0419.7	1.9	59.0			
	8800	PALE	47	GB	0419.1	0419.8	2.9	500.0			QL=2 ST=2 TYP=5
	610	MANI	20	GRF	0419.1	0421.3	3.9	69.0			QL=6 ST=2 TYP=2
	950	GORK	3	S	0419.2	0419.9	9.5	33.0			
	245	PALE	49	GB	0419.3	0419.8	1.8	2899.0			QL=2 ST=2 TYP=6
	2695	PALE	47	GB	0419.3	0419.8	2.7	61.0			QL=2 ST=2 TYP=5
	650	GORK	3	S	0419.3	0419.8	3.7	24.0			
	100	GORK	41	F	0419.4	0419.8	5.0	1340.0D			
	500	HIRA	45	C	0419.4	0420.0	5.0	12.0	5.0		WR
	100	GORK			0419.4	0424.4		1360.0D			
	410	PALE	47	GB	0419.6	0419.8	1.4	130.0			QL=2 ST=2 TYP=5
	610	PALE	8	S	0419.6	0419.8	1.9	31.0			QL=2 ST=2 TYP=3
	1415	PALE	4	S/F	0419.6	0420.0	2.4	34.0			QL=2 ST=2 TYP=3
	35000	NAGO	5	S	0420.0	0420.0	3.0	110.0			
	2000	TYKW	30	PBI	0423.0		4.0	2.5	1.5		
	9395	PEKG	3	S	0424.0	0429.5	10.0	481.0	126.0		
	2000	TYKW	31	ABS	0427.0	0439.0	30.0	-3.0	-1.5		
	1000	TYKW	31	ABS	0427.0	0440.0	50.0	-2.0	-1.0		
	9400	TYKW	32	ABS	0435.0	0459.0	33.0	-4.0	-2.0		
	6100	KISV	2	S/F	0443.4	0444.5	5.0	15.0			
	9400	TYKW	45	C	0443.5	0444.5	4.5	37.0	12.0		
	15000	KISV	2	S/F	0443.8	0444.4	2.0	32.0			
	17000	NOBE	1	S	0443.8	0444.5	2.0	21.0			O
	9100	GORK	2	S/F	0443.8	0444.5	3.2	360.0			
	6100	KISV	4	S/F	0447.7	0449.7	9.5	190.0			
	9400	TYKW	29	PBI	0448.0		10.0	6.0	3.0		
	1000	TYKW	8	S	0450.3	0450.4	.2	14.0	4.0		
	1000	TYKW	8	S	0458.6	0458.7	.2	8.0	2.0		
	3750	TYKW	20	GRF	0510.0	0531.0	50.0D	7.0	3.0D		
	9400	TYKW	21	GRF	0510.0	0800.0	222.0D	16.0	9.0D		RAIN
	9400	TYKW	45	C	0515.0	0536.6	35.0	38.0	14.0		
	6100	KISV	21	GRF	0522.5	0530.5	40.0	23.0			
	1000	TYKW	45	C	0530.7	0532.4	4.0	3.0	1.0		
	650	GORK	1	S	0530.8	0532.6	3.5	2.0			
	2000	TYKW	5	S	0531.5	0532.3	3.0	3.0	1.0		
	200	GORK	8	S	0531.7	0531.9	.6	150.0D			
	100	GORK	8	S	0531.8	0531.8	.2	650.0			
	1000	TYKW	45	C	0540.6	0540.8	.8	13.0	3.0		
	9400	TYKW	29	PBI	0550.0		13.0	8.0	4.0		
	1000	TYKW	8	S	0553.9	0554.0	.2	46.0	10.0		
	950	GORK	2	S/F	0605.2	0606.2	4.5	7.0			
	1000	TYKW	5	S	0608.7	0609.1	1.0	2.0	.7		
	9400	TYKW	28	PRE	0610.0	0614.5	4.5	8.0	3.5		
	3750	TYKW	21	GRF	0610.0	0650.0	180.0	12.0	8.0		
	9395	PEKG			0610.0	0615.5					
	9395	PEKG	45	C	0610.0	0621.5	16.0	151.0	4.9		
	200	GORK	41	F	0613.7	0615.5	6.0	150.0D			
	200	GORK			0613.7	0618.8		130.0			
	3750	TYKW	5	S	0614.0	0615.4	8.0	73.0	16.0		
	2000	TYKW	5	S	0614.0	0615.4	4.0	12.0	3.0		
	1000	TYKW	45	C	0614.0	0615.5	4.0	9.0	3.0		
	2840	PEKG	3	S	0614.0	0615.4	9.0	40.0	17.0		
	11800	BERN	45	C	0614.5	0615.3	12.0	130.0			
	8400	BERN	45	C	0614.5	0615.4	12.0	168.0			
	9400	TYKW	45	C	0614.5	0615.4	9.0	164.0	32.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	19600	BERN	45	C	0614.5	0615.4	12.0	49.0			
	4995	ATHN	47	GB	0614.6	0615.3	9.2	119.0			QL=6 ST=3 TYP=5
	4995	ATHN	4	S/F	0614.6	0615.3	9.2	119.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	0614.6	0615.3	9.2	139.0			QL=6 ST=3 TYP=3
	8800	ATHN	47	GB	0614.6	0615.3	9.2	139.0			QL=6 ST=3 TYP=5
	6100	KISV	4	S/F	0614.6	0615.4	9.0	95.0			
	2950	GORK	3	S	0614.6	0615.4	4.0	36.0			
	9100	GORK	46	C	0614.7	0615.4	8.3	170.0			
	9100	GORK			0614.7	0621.0		50.0			
	2695	ATHN	4	S/F	0614.8	0615.3	9.0	27.0			QL=6 ST=3 TYP=3
	15000	KISV	8	S	0614.9	0615.4	1.0	100.0			
	17000	NOBE	7	C	0614.9	0637.3	34.0	260.0			R
	2650	DWIN	1	S	0615.0	0615.0	5.0	26.0	15.0		
	200	HIRA	45	C	0615.0	0615.3	.8	420.0	100.0		0
	650	GORK	1	S	0615.0	0615.4	3.0	2.5			
	100	GORK	41	F	0615.0	0615.6	4.3	100.0D			
	100	GORK			0615.0	0618.6		100.0D			
	204	IZMI	42	SER	0615.0	0637.0	26.8	1670.0			
	100	HIRA	46	C	0615.2	0615.3	.7	900.0	378.0		WL
	113	POTS	4	S/F	0615.3	0615.5	6.0	200.0	50.0		III
	15000	KISV	29	PBI	0615.8	0615.8	5.0	26.0			
	1000	TYKW	29	PBI	0618.0		10.0	2.0	1.0		
	2000	TYKW	29	PBI	0618.0		15.0	1.5	.7		
	15000	KISV	2	S/F	0620.7	0621.2	1.5	47.0			
	3750	TYKW	29	PBI	0622.0		5.0	2.0	1.0		
	9400	TYKW	29	PBI	0623.5		6.0	6.0	3.0		
	9395	PEKG	3	S	0630.0	0637.5	11.0	466.0	47.2		
	2840	PEKG	3	S	0633.0	0637.5	12.0	45.0	17.0		
	9400	TYKW	28	PRE	0634.0	0636.0	2.5	10.0	4.0		
	6100	KISV	3	S	0634.6	0637.2U	6.0	195.0D			
	1000	TYKW	45	C	0635.4	0637.7	6.6	36.0	9.0		
	3750	TYKW	5	S	0635.5	0637.3	8.0	100.0	21.0		
	950	GORK	4	S/F	0635.7	0637.7	7.0	28.0			
	808	ONDR	3	S	0635.7	0637.9	6.0	25.0	21.0		
	2000	TYKW	5	S	0636.0	0637.6	4.0	24.0	9.0		
	2650	DWIN	1	S	0636.0	0636.0	3.0	32.0	15.0		
	8400	BERN	3	S	0636.0	0637.2	6.0	500.0			
	9100	GORK	3	S	0636.3	0637.2	5.5	512.0			
	536	ONDR	3	S	0636.4	0638.3	10.0	9.0	7.0		
	9400	TYKW	47	GB	0636.5	0637.2	5.5	535.0	100.0		
	2950	GORK	3	S	0636.5	0637.2	3.5	43.0			
	11800	BERN	3	S	0636.5	0637.2	6.0	480.0			
	15000	KISV	3	S	0636.5	0637.2	5.5	460.0			
	1470	POTS	3	S	0636.7	0637.5	11.0	53.0			
	100	HIRA	46	C	0636.8	0637.0	11.7	5300.0	1390.0		ML
	200	HIRA	45	C	0636.8	0637.0	2.0	2050.0	187.0		0
	100	GORK	46	C	0636.8	0637.2	1.9	1400.0D			
	100	GORK			0636.8	0637.6		670.0			
	234	POTS	42	SER	0636.9	0637.3	4.5	950.0	20.0		III/V
	500	HIRA	3	S	0636.9	0637.6	5.0	12.0	6.0		WR
	650	GORK	3	S	0636.9	0637.7	4.7	19.0			
	19600	BERN	3	S	0637.0	0637.2	6.0	194.0			
	200	GORK	8	S	0637.0	0637.3	2.0	150.0D			
	35000	BERN	3	S	0637.0	0637.3	6.0	166.0			
	113	POTS	42	SER	0637.2	0637.2	4.4	2100.0	80.0		III/V
	9500	POTS	3	S	0637.3	0637.5	18.0	467.0			
	2000	TYKW	29	PBI	0640.0		10.0	4.0	1.5		
	1000	TYKW	29	PBI	0642.0		10.0	2.5	1.0		
	9400	TYKW	30	PBI	0642.0		75.0	12.0	6.0		
	9395	PEKG	3	S	0648.0	0700.9	12.9U	88.0	21.0		
	2840	PEKG			0658.0	0716.0					
	2840	PEKG			0658.0	0718.8					
	2840	PEKG	41	F	0658.0	0738.5	40.5	61.0	7.4		
	9500	POTS	4	S/F	0700.0	0700.7	8.0	66.0			
	11800	BERN	3	S	0700.0	0700.8	2.0U	91.0			
	8400	BERN	3	S	0700.0	0700.8	2.0U	88.0			
	4995	ATHN	8	S	0700.3	0700.6	.8	13.0			QL=6 ST=3 TYP=3
	8800	ATHN	47	GB	0700.3	0700.6	1.5	69.0			QL=6 ST=3 TYP=5
	9400	TYKW	45	C	0700.3	0700.8	6.5	97.0	11.0		
	15000	KISV	8	S	0700.5	0700.8	.5	45.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	6100	KISV	3	S	0700.5	0700.8	1.5	28.0			
	9100	GORK	3	S	0700.6	0700.7	.9	93.0			
	6100	KISV	29	PBI	0701.2	0701.2	5.0	4.0			
	6100	KISV	1	S	0703.2	0703.8	2.5	7.0			
	113	POTS	4	S/F	0703.7	0703.7	.1	240.0	60.0		III
	9400	TYKW	5	S	0708.0	0710.0	10.0	6.0	2.5		
	200	GORK	41	F	0708.2	0738.2	35.0	150.0D			
	200	GORK			0708.2	0741.8		150.0D			
	6100	KISV	1	S	0708.6	0708.9	1.0	4.0			
	1000	TYKW	8	S	0708.7	0708.9	.3	3.0	1.0		
	1000	TYKW	8	S	0709.4	0709.5	.4	5.0	1.5		
	2000	TYKW	45	C	0712.0	0715.8	10.0	28.0	11.0		
	3750	TYKW			0713.0	0718.8		27.0			
	3750	TYKW	45	C	0713.0	0738.3	33.0	68.0	13.0		
	2650	DWIN	2	S/F	0713.0	0719.0	30.0	35.0	15.0		
	1470	POTS	22	GRF	0713.0	0738.8	42.0	17.0			
	3000	POTS	22	GRF	0713.5	0718.8	5.3U	37.0			
	3000	POTS			0713.5	0738.5		39.0			
	2695	LEAR	4	S/F	0715.5	0718.8	9.6	43.0			QL=5 ST=3 TYP=3
	2950	GORK	1	S	0715.7	0716.0	.8	6.9			
	1415	LEAR	4	S/F	0717.8	0719.3	4.0	10.0			QL=5 ST=3 TYP=3
	1000	TYKW	45	C	0717.9	0719.2	2.0	4.0	.7		
	2950	GORK	4	S/F	0718.1	0718.8	2.8	19.0			
	2000	TYKW	30	PBI	0722.0		30.0	10.0	5.0		
	1000	TYKW	8	S	0727.2	0727.3	.2	4.0	1.0		
	9395	PEKG	3	S	0728.0	0738.5	20.0	398.0	42.2		
	33	UPIC	48	C	0730.9	0741.5	11.6				
	2000	TYKW	45	C	0732.0	0733.7	4.0	24.0	2.0		
	9500	POTS	45	C	0732.0	0738.3	23.0	375.0			
	100	HIRA	42	SER	0732.0	0741.6	10.6	10000.0			WL
	200	HIRA	42	SER	0732.0	0741.8	11.0	11000.0			O
	113	POTS	42	SER	0732.1	0738.5	10.0	1500.0	40.0		III/V
	6100	KISV	28	PRE	0732.2	0734.1	5.0	8.0			
	245	LEAR	8	S	0732.3	0732.6	.8	21.0			QL=5 ST=2 TYP=3
	127	TORN	42	SER	0732.5	0738.2	10.0	1000.0			
	9400	TYKW	45	C	0733.0	0734.0	2.0	10.0	3.0		
	1000	TYKW	45	C	0733.0	0734.1	2.5	2.0	.7		
	15400	LEAR	8	S	0733.3	0734.6	1.7	26.0			QL=5 ST=2 TYP=3
	8800	LEAR	8	S	0733.6	0734.3	1.2	11.0			QL=5 ST=2 TYP=3
	4995	LEAR	4	S/F	0733.8	0734.1	45.0	11.0			QL=5 ST=2 TYP=3
	11800	BERN	3	S	0734.3	0738.4	8.0	416.0			
	19600	BERN	3	S	0734.3	0738.4	8.0	165.0			
	8400	BERN	3	S	0734.3	0738.4	8.0	383.0			
	35000	BERN	3	S	0734.3	0738.5U	8.0	119.0			
	204	IZMI	42	SER	0736.2	0742.0	73.2	5500.0			
	100	GORK	46	C	0736.3	0736.4	6.0	1000.0			
	100	GORK			0736.3	0738.3		1400.0D			
	234	POTS	42	SER	0736.3	0738.4	5.9	23000.0	350.0		III/V
	100	GORK			0736.3	0741.3		1400.0D			
	100	GORK			0736.3	0741.8		1400.0D			
	2000	TYKW	45	C	0737.0	0738.5	7.0	16.0	3.0		
	1000	TYKW	45	C	0737.0	0738.7	8.0	19.0	4.0		
	2950	GORK	4	S/F	0737.2	0738.6	3.4	29.0			
	4995	ATHN	47	GB	0737.3	0738.3	5.8	119.0			QL=6 ST=3 TYP=5
	4995	LEAR	47	GB	0737.3	0738.3	3.7	110.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0737.3	0738.3	6.0	24.0			QL=6 ST=3 TYP=3
	8800	ATHN	47	GB	0737.3	0738.3	4.5	350.0			QL=6 ST=3 TYP=5
	9100	GORK	3	S	0737.3	0738.3	4.1	424.0			
	6100	KISV	4	S/F	0737.3	0738.4	4.0	162.0			
	808	ONDR	3	S	0737.3	0738.8	7.0	16.0	15.0		
	950	GORK	2	S/F	0737.4	0738.8	6.8	15.0			
	8800	LEAR	47	GB	0737.5	0738.3	3.5	400.0			QL=6 ST=2 TYP=5
	17000	NOBE	4	S/F	0737.5	0738.3	4.0	265.0			R
	9400	TYKW	45	C	0737.5	0738.4	3.5	420.0	115.0		
	15000	KISV	4	S/F	0737.5	0738.4	3.5	350.0			
	15400	LEAR	47	GB	0737.6	0738.3	3.5	320.0			QL=6 ST=2 TYP=5
	1415	ATHN	8	S	0737.6	0738.3	1.9	6.0			QL=6 ST=3 TYP=3
	500	HIRA	45	C	0737.7	0738.6	6.0	7.0	3.0		WR
	245	LEAR	49	GB	0737.8	0738.1	1.0	1899.0			QL=6 ST=2 TYP=6
	35000	NAGO	5	S	0738.0	0738.0	2.0	46.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	650	GORK	46	C	0738.0	0738.7	5.7	13.0			
	650	GORK			0738.0	0742.1		5.0			
	2695	LEAR	8	S	0738.1	0738.3	.2	17.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0738.1	0738.6	1.0	20.0			QL=6 ST=2 TYP=3
	536	ONDR	3	S	0738.2	0738.7	6.2	7.0	6.0		
	610	LEAR	8	S	0738.3	0738.6	.8	20.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0738.6	0738.8	.2	11.0			QL=6 ST=2 TYP=3
	8800	MANI	20	GRF	0738.6	0739.5	3.2	169.0			QL=6 ST=2 TYP=2
	4995	MANI	20	GRF	0738.6	0739.6	3.4	32.0			QL=6 ST=2 TYP=2
	2695	MANI	20	GRF	0738.8	0739.8	2.2	20.0			QL=6 ST=2 TYP=2
	9400	TYKW	29	PBI	0741.0		15.0	14.0	4.0		
	6100	KISV	29	PBI	0741.1	0741.1	6.0	15.0			
	1000	TYKW	45	C	0748.0	0748.7	1.5	4.0	1.0		
	6100	KISV	2	S/F	0748.2	0748.8	3.5	8.0			
	3750	TYKW	5	S	0748.3	0748.8	2.0	7.0	2.5		
	2840	PEKG	3	S	0805.0	0811.5	17.0	55.0	13.0		
	9395	PEKG			0805.0	0811.5					
	9395	PEKG	45	C	0805.0	0813.4	23.0	275.0	38.3		
	3750	TYKW	5	S	0807.0	0807.3	1.0	6.0	2.0		
	9400	TYKW	5	S	0807.0	0807.3	1.0	13.0	3.0		
	6100	KISV	1	S	0807.2	0807.4	2.0	8.0			
	3000	POTS	42	SER	0808.0	0811.0	21.0	45.0			
	1000	TYKW	45	C	0808.5	0812.1	10.5	24.0	7.0		
	3750	TYKW	45	C	0809.0	0811.3	10.0	84.0	30.0		
	9400	TYKW	45	C	0809.0	0811.6	12.0	290.0	48.0		
	6100	KISV	28	PRE	0809.3	0810.7	1.5	10.0			
	4995	LEAR	47	GB	0810.0	0811.3	8.1	189.0			QL=6 ST=2 TYP=5
	8400	BERN	4	S/F	0810.0	0811.3	20.0	308.0			
	11800	BERN	4	S/F	0810.0	0811.6	20.0	230.0			
	19600	BERN	4	S/F	0810.0	0811.6	20.0	99.0			
	1470	POTS	42	SER	0810.0	0811.7	20.0	22.0			
	8800	ATHN	47	GB	0810.1	0811.5	7.9	239.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	0810.1	0811.5	7.9	189.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0810.1	0811.5	5.4	27.0			QL=6 ST=2 TYP=3
	500	HIRA	45	C	0810.3	0811.6	7.0	10.0	7.0		WL
	33	UPIC	48	C	0810.5	0810.8U	7.3				
	8800	LEAR	47	GB	0810.5	0811.3	7.6	340.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0810.5	0811.6	7.6	189.0			QL=6 ST=2 TYP=5
	2000	TYKW	45	C	0810.5	0811.7	8.0	25.0	6.0		
	2950	GORK	4	S/F	0810.7	0811.3	3.4	33.0			
	9100	GORK	4	S/F	0810.7	0811.6	7.4	300.0			
	15000	KISV	4	S/F	0810.7	0811.6	7.0	228.0			
	650	GORK	45	C	0810.7	0812.0	3.5	13.0			
	950	GORK	3	S	0810.7	0812.1	7.1	16.0			
	650	GORK			0810.7	0813.2		13.0			
	100	HIRA	42	SER	0810.8	0811.3	6.6	4500.0			WL
	2695	LEAR	4	S/F	0810.8	0811.6	3.8	38.0			QL=6 ST=2 TYP=3
	6100	KISV	45	C	0810.8	0811.6	3.5	173.0			
	6100	KISV			0810.8	0813.1		88.0			
	536	ONDR	7	C	0810.9	0812.3	10.0	8.0	6.0		
	113	POTS	42	SER	0811.0	0811.3	17.0	1800.0	15.0		III
	200	GORK	46	C	0811.0	0811.3	5.8	85.0			
	35000	BERN	4	S/F	0811.0U	0812.1	20.0U	100.0			
	200	HIRA	42	SER	0811.0	0812.8	3.0	460.0			0
	200	GORK			0811.0	0813.0		150.0D			
	2695	MANI	20	GRF	0811.0	0813.0	4.8	24.0			QL=6 ST=2 TYP=2
	4995	MANI	20	GRF	0811.0	0813.1	6.1	60.0			QL=6 ST=2 TYP=2
	127	TORN	42	SER	0811.0	0813.2	5.5	280.0			
	410	LEAR	8	S	0811.1	0811.3	2.0	40.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0811.1	0811.6	2.9	28.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0811.1	0811.8	4.4	30.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0811.3	0811.5	2.0	43.0			QL=6 ST=2 TYP=3
	610	LEAR	4	S/F	0811.3	0812.1	4.2	20.0			QL=6 ST=2 TYP=3
	8800	MANI	20	GRF	0812.0	0813.1	4.0	230.0			QL=6 ST=2 TYP=2
	6100	KISV	29	PBI	0814.3	0814.5	6.0	30.0			
	6100	KISV	2	S/F	0815.0	0815.3	1.0	7.0			
	6100	KISV	1	S	0817.4	0817.5	.5	14.0			
	1000	TYKW	30	PBI	0819.0		12.0	2.0	1.0		
	2840	PEKG	5	S	0822.0	0828.0	10.0	14.0	1.6		
	3750	TYKW	5	S	0824.0	0824.3	1.0	6.0	1.5		

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	2000	TYKW	5	S	0824.0	0824.4	1.0	6.0	2.0		
	1000	TYKW	5	S	0824.0	0824.4	1.0	3.0	1.0		
	2950	GORK	2	S/F	0824.0	0824.5	1.0	5.5			
	3750	TYKW	5	S	0826.0	0827.6	4.0	13.0	5.0		
	2695	ATHN	8	S	0826.0	0826.8	2.0	11.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0826.1	0826.8	2.2	21.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0826.1	0826.8	2.0	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0826.1	0827.5	4.0	21.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0826.5	0827.5	1.5	3.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0826.5	0827.6	2.1	18.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0826.6	0827.6	3.5	11.0			QL=6 ST=2 TYP=3
	6100	KISV	2	S/F	0826.6	0827.7	3.0	16.0			
	245	LEAR	8	S	0826.8	0827.0	.3	10.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0826.8	0827.6	1.5	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0826.8	0828.0	2.2	22.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0827.0	0827.6	3.0	7.0	3.0		
	1000	TYKW	5	S	0827.0	0827.7	2.5	5.0	2.0		
	9400	TYKW	5	S	0827.0	0827.7	3.0	13.0	6.0		
	9100	GORK	1	S	0827.0	0827.6	2.4	20.0	10.0		
	2950	GORK	2	S/F	0827.0	0827.9	1.4	6.9			
	3750	TYKW	30	PBI	0830.0		15.0	4.0	3.0		
	127	TORN	8	S	0842.0	0842.5	1.5	2600.0	1300.0		
	1470	POTS	22	GRF	0842.0	0848.3	18.0	8.0			
	3000	POTS	22	GRF	0842.0	0848.5	18.0	19.0			
	6100	KISV	21	GRF	0842.0	0849.4	18.0	15.0			
	6100	KISV			0842.0	0856.4		15.0			
	2000	TYKW	45	C	0843.0	0847.0	8.0	30.0	2.0		
	3750	TYKW	45	C	0845.0	0848.2	9.0	22.0	4.0		
	9500	POTS	22	GRF	0845.0	0849.4	15.0	20.0			
	2650	DWIN	41	F	0846.0	0846.0	3.0	215.0	20.0		
	4995	LEAR	4	S/F	0846.3	0847.6	3.3	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0846.3	0849.1	4.0	20.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0846.5	0847.3	1.6	4.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0846.5	0847.6	2.6	23.0			QL=6 ST=2 TYP=3
	15000	KISV	2	S/F	0847.0	0847.9	3.0	33.0			
	9400	TYKW	45	C	0847.0	0849.4	5.0D	22.0	6.0D		RAIN
	15400	LEAR	4	S/F	0847.0	0847.6	2.8	27.0			QL=6 ST=2 TYP=3
	9100	GORK	2	S/F	0847.5	0849.5	2.4	20.0			
	200	GORK	4	S/F	0848.5	0848.8	1.5	150.0D			
	245	LEAR	49	GB	0848.6	0849.3	1.4	2300.0			QL=6 ST=2 TYP=6
	234	POTS	41	F	0848.6	0849.4	1.5	1500.0	50.0		III
	113	POTS	4	S/F	0849.4	0849.4	.3	250.0	40.0		III
	2840	PEKG	3	S	0853.0	0856.3	7.0	20.0	2.2		
	3750	TYKW	5	S	0854.5	0856.3	4.0	17.0	4.0		
	2950	GORK	2	S/F	0854.8	0856.3	2.5	9.6			
	2000	TYKW	5	S	0855.0	0856.3	3.0U	4.0	1.5U		
	9100	GORK	1	S	0855.6	0856.3	1.4	17.0			
	2840	PEKG	29	PBI	0900.0		26.0	19.0	1.9		
	113	POTS	8	S	0913.4	0913.5	.9	700.0	250.0		III
	9395	PEKG	3	S	0920.0	0931.0	19.0	65.0	28.0		
	6100	KISV	1	S	0924.2	0924.5	1.0	5.0			
	15000	KISV	2	S/F	0924.2	0924.5	1.0	23.0			
	2840	PEKG	3	S	0926.0	0930.2	12.0	38.0	18.0		
	4995	ATHN	4	S/F	0926.3	0928.8	17.2	50.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	0926.3	0930.1	17.2	68.0			QL=6 ST=2 TYP=5
	2650	DWIN	1	S	0927.0	0930.0	8.0	20.0	10.0		
	6100	KISV	4	S/F	0927.0	0930.2	9.0	41.0			
	15000	KISV	28	PRE	0927.3	0927.7	.7	19.0			
	2695	ATHN	4	S/F	0927.6	0928.8	15.9	27.0			QL=6 ST=2 TYP=3
	1470	POTS	40	F	0928.0	0930.0	17.0	8.0			
	3000	POTS	29	PBI	0928.0	0930.0	17.0	29.0			
	9500	POTS	21	GRF	0928.0	0931.5	32.0	56.0			
	15000	KISV	4	S/F	0928.0	0931.7	8.0	101.0			
	9100	GORK	3	S	0928.3	0931.2	6.7	60.0			
	950	GORK	2	S/F	0929.2	0930.1	4.0	26.0			
	2950	GORK	4	S/F	0929.3	0930.0	3.8	19.3			
	808	ONDR	8	S	0930.3	0930.4	.2	24.0			
	9100	GORK	1	S	0936.6	0937.0	1.6	34.0			
	6100	KISV	2	S/F	0936.7	0937.1	8.0	17.0			
	15000	KISV	2	S/F	0936.9	0937.1	1.0	19.0			

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	2650	DWIN	41	F	0942.0	0946.0	5.0	56.0	10.0		
	8400	BERN	3	S	0945.0	0952.5U	40.0	64.0			ONLY PAPER REC
	19600	BERN	3	S	0945.0	0952.5U	40.0	77.0			ONLY PAPER REC
	35000	BERN	3	S	0945.0U	0952.5U	7.5U	160.0			ONLY PAPER REC
	536	ONDR	8	S	1008.3	1008.4	.3	13.0			
	536	ONDR	8	S	1019.4	1019.4	.2	10.0			
	9500	POTS	45	C	1031.0	1042.5	24.0	154.0			
	3000	POTS	45	C	1033.0	1042.2	25.0	49.0			
	4995	ATHN	47	GB	1034.3	1041.3	26.8	83.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	1034.6	1041.1	8.7	46.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1034.8	1041.3	18.0	160.0			QL=6 ST=2 TYP=5
	6100	KISV	2	S/F	1036.0	1036.9	3.0	13.0			
	8400	BERN	4	S/F	1036.0	1042.5	20.0	135.0			ONLY PAPER REC
	2650	DWIN	2	S/F	1037.0	1043.0	10.0	42.0	20.0		
	1415	ATHN	4	S/F	1039.6	1041.1	5.9	13.0			QL=6 ST=2 TYP=3
	1470	POTS	4	S/F	1040.0	1042.2	10.0	18.0			
	6100	KISV	46	C	1040.5	1042.6	6.0	58.0			
	6100	KISV			1040.5	1044.5		35.0			
	4995	SGMR	47	GB	1040.8	1042.1	3.8	72.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1040.8	1042.5	7.3	160.0			QL=6 ST=2 TYP=5
	15000	KISV	46	C	1041.0	1042.3	6.0U	238.0			
	19600	BERN	4	S/F	1041.0	1042.5U	6.0	194.0			ONLY PAPER REC
	15000	KISV			1041.0	1044.5		66.0			
	15400	SGMR	47	GB	1041.5	1042.5	3.6	200.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	1041.8	1042.1	2.5	26.0			QL=6 ST=2 TYP=3
	113	POTS	4	S/F	1041.8	1042.4	2.1	1100.0	90.0		III/V
	610	SGMR	4	S/F	1041.8	1044.0	3.3	21.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1042.0	1042.1	.8	59.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1042.6	1042.6	2.4	39.0			QL=6 ST=2 TYP=3
	204	IZMI	42	SER	1043.7	1112.4	53.3	2850.0			
	2695	ATHN	4	S/F	1103.1	1106.3	5.5	48.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1103.6	1107.1	7.7	63.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	1103.6	1107.1	8.2	25.0			QL=6 ST=2 TYP=3
	6100	KISV	2	S/F	1104.0	1105.0	2.0	9.0			
	2800	OTTA	40	F	1104.0	1107.3	5.0	53.0			
	2650	DWIN	41	F	1104.0	1108.0	7.0	105.0	20.0		
	9500	POTS	42	SER	1104.0	1108.0	10.0	66.0			
	3000	POTS	40	F	1104.0	1108.0	10.0	29.0			
	610	SGMR	8	S	1104.3	1104.8	.8	32.0			QL=6 ST=2 TYP=3
	8400	BERN	3	S	1105.0	1108.0U	8.0	55.0			ONLY PAPER REC
	19600	BERN	3	S	1105.0	1108.0U	8.0	90.0			ONLY PAPER REC
	1415	ATHN	4	S/F	1105.5	1107.1	3.1	10.0			QL=6 ST=2 TYP=3
	6100	KISV	4	S/F	1107.0	1108.3	5.5	25.0			
	8800	SGMR	47	GB	1107.1	1108.1	1.4	68.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1107.3	1108.1	1.3	110.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	1107.6	1108.1	.9	28.0			QL=6 ST=2 TYP=3
	113	POTS	42	SER	1108.4	1112.2	97.2	630.0	8.0		III
	234	POTS	41	F	1109.9	1109.9	16.5	3600.0	70.0		III
	6100	KISV	8	S	1111.6	1111.7	.3	8.0			
	8800	ATHN	47	GB	1125.5	1128.8	9.0	53.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	1125.5	1128.8	9.0	45.0			QL=6 ST=2 TYP=3
	9500	POTS	4	S/F	1126.5	1129.5	12.0	44.0			
	6100	KISV			1127.0	1127.9		34.0			
	6100	KISV	46	C	1127.0	1129.7	7.0	37.0			
	2800	OTTA	2	S/F	1127.0	1130.0	6.0	8.2	3.8		
	6100	KISV			1127.0	1130.1		34.0			
	1470	POTS	22	GRF	1127.0	1130.3	5.0	5.0			
	3000	POTS	22	GRF	1127.0	1130.5	5.0	9.0			
	4995	SGMR	47	GB	1127.3	1129.6	3.7	51.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1127.6	1129.6	3.4	60.0			QL=6 ST=2 TYP=5
	113	POTS	42	SER	1128.1	1130.0	2.3	350.0	7.0		III
	113	POTS	41	F	1214.1	1214.6	.6	1000.0	90.0		III
	234	POTS	4	S/F	1220.0	1220.3	.4	150.0	8.0		III
	8800	ATHN	4	S/F	1237.3	1238.3	3.8	30.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1237.3	1238.3	3.7	13.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1237.3	1238.3	6.3	35.0			QL=6 ST=2 TYP=3
	2800	OTTA	4	S/F	1238.3	1239.3	3.5	18.6	9.0		
	234	POTS	41	F	1238.5	1238.6	.9	330.0	8.0		III
	4995	SGMR	8	S	1238.5	1239.1	1.8	40.0			QL=6 ST=2 TYP=3
	9500	POTS	23	GRF	1238.5	1239.2	32.0	26.0			

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	3000	POTS	3	S	1238.5	1239.3	3.5	20.0			
	6100	KISV	4	S/F	1238.5	1239.3	4.0	25.0			
	1470	POTS	3	S	1238.5	1239.5	4.0	7.0			
	9500	POTS			1238.5	1254.3		35.0			
	8800	SGMR	4	S/F	1238.6	1239.1	2.5	38.0			QL=6 ST=2 TYP=3
	113	POTS	42	SER	1238.7	1238.8	11.0	300.0	3.0		III
	2650	DWIN	1	S	1239.0	1239.0	2.0	18.0	10.0		
	8800	ATHN	4	S/F	1251.5	1254.0	5.8	20.0			QL=6 ST=2 TYP=3
	6100	KISV	28	PRE	1332.0	1352.6	26.5	46.0			
	9500	POTS	45	C	1332.0	1359.4	48.0	363.0			
	8400	BERN	45	C	1333.0	1410.0U	54.0	400.0			ONLY PAPER REC
	19600	BERN	45	C	1333.0	1410.0U	54.0	95.0			ONLY PAPER REC
	4995	ATHN	47	GB	1334.1	1352.0	44.4	119.0			QL=6 ST=2 TYP=5
	8800	ATHN	47	GB	1336.6	1341.3	31.0	66.0			QL=6 ST=2 TYP=5
	2695	ATHN	47	GB	1336.6	1358.6	33.7	77.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1338.8	1342.6	27.3	68.0			QL=6 ST=2 TYP=5
	2800	OTTA	21	GRF	1340.0	1455.0	155.0	9.0	4.4		
	4995	SGMR	8	S	1340.8	1342.6	1.8D	19.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1350.6	1351.3	.7D	40.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1351.1	1352.1	1.0D	30.0			QL=6 ST=2 TYP=3
	1415	ATHN	47	GB	1351.3	1358.6	19.0	52.0			QL=6 ST=2 TYP=5
	2650	DWIN	2	S/F	1352.0	1359.0	13.0	70.0	30.0		
	2800	OTTA			1352.0	1359.5	8.0D	85.0			
	15400	SGMR	8	S	1352.3	1352.6	.3D	30.0			QL=6 ST=2 TYP=3
	3000	POTS	45	C	1354.3	1359.7	15.0U	85.0			
	6100	KISV	8	S	1354.4	1354.7	1.5	68.0			
	808	ONDR	46	C	1354.4	1359.6	15.4	40.0	22.0		
	1470	POTS	45	C	1354.5	1359.8	15.0	57.0			
	113	POTS	42	SER	1354.5	1402.0	9.7	8800.0	160.0		III
	234	POTS	42	SER	1354.5	1402.0	8.9	235000.0	1300.0		III
	536	ONDR	46	C	1354.5	1403.4	14.0	36.0	19.0		
	1415	SGMR	8	S	1354.6	1354.6	.4	22.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	1354.8	1354.8	.2	17.0			QL=6 ST=2 TYP=3
	6100	KISV	4	S/F	1358.5	1359.7	2.0	258.0			
	33	UPIC	48	C	1358.5	1402.3	8.0				
	410	SGMR	47	GB	1359.5	1400.1	4.8	36.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	1401.5	1402.1	2.6	10000.0			QL=6 ST=2 TYP=6
	610	SGMR	8	S	1406.1	1406.3	.7	22.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1406.1	1406.5	.4	20.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1406.1	1406.5	.4D	32.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1406.1	1406.5	1.0	40.0			QL=6 ST=2 TYP=3
	8800	SGMR	20	GRF	1406.1	1406.6	.7	33.0			QL=6 ST=2 TYP=2
	245	SGMR	47	GB	1406.1	1406.8	3.0	82.0			QL=6 ST=3 TYP=5
	15400	SGMR	8	S	1406.3	1406.3	.3	30.0			QL=6 ST=2 TYP=3
	536	ONDR	41	F	1410.5	1417.0U	7.0	24.0			
	2800	OTTA	2	S/F	1440.9	1441.0	1.0	6.0	3.0		
	1470	POTS	40	F	1445.0	1455.5	13.0	11.0			
	2800	OTTA	2	S/F	1452.0	1453.2	5.0	6.0			
	8800	ATHN	47	GB	1515.1	1518.5	17.5	66.0			QL=6 ST=2 TYP=5
	8400	BERN	3	S	1517.0	1519.5	12.0	64.0			ONLY PAPER REC
	19600	BERN	3	S	1517.0	1519.5	2.5D	60.0			ONLY PAPER REC
	8800	SGMR	47	GB	1518.5	1519.3	2.6	72.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1519.3	1519.3	.3	100.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	1555.5	1602.6	23.1	34.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1557.1	1602.0	21.5	24.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1600.0	1604.8	10.8	10.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1600.8	1602.1	10.0	25.0			QL=6 ST=2 TYP=3
	2800	OTTA	45	C	1601.0	1602.7	9.0	12.2	4.0		
	2800	OTTA	21	GRF	1625.0	1755.0	205.0	15.0	7.5		
	9400	HUAN	21	GRF	1634.2	1658.1U	64.7	30.6	8.8		R
	9400	HUAN	21	GRF	1634.2	1658.1	64.7	30.6	8.8		R
	4995	SGMR		S	1644.3	1646.0	1.7D				QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1646.1	1649.3	6.7	29.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1647.1	1647.5	2.0	200.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1647.3	1647.3	.3	50.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	1647.3	1647.5	.3	18.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1648.6	1649.0	.4D	27.0			QL=6 ST=2 TYP=3
	8400	BERN	3	S	1650.0U	1705.4	33.0U	210.0			ONLY PAPER REC
	8800	SGMR	47	GB	1656.1	1702.3	19.2	76.0			QL=6 ST=2 TYP=5
	4995	SGMR	20	GRF	1656.8	1702.0	20.8	50.0			QL=6 ST=2 TYP=2

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	8800	ATHN	47	GB	1656.8	1706.1	14.5	130.0			QL=6 ST=2 TYP=5
	2695	ATHN	47	GB	1656.8	1706.1	14.8	69.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	1656.8	1706.1	14.5	66.0			QL=6 ST=2 TYP=5
	2800	OTTA	4	S/F	1657.0	1706.0	41.0	93.0	21.0		
	2695	SGMR	47	GB	1657.3	1703.8	24.8	64.0			QL=6 ST=2 TYP=5
	15400	SGMR	8	S	1657.8	1658.3	.5	32.0			QL=6 ST=2 TYP=3
	9400	HUAN	45	C	1659.6	1705.5	15.8	175.7	55.3		R
	4995	PALE	47	GB	1702.3	1702.3	26.2	73.0			QL=5 ST=2 TYP=5
	8800	PALE	47	GB	1702.3	1702.3	26.2	100.0			QL=5 ST=2 TYP=5
	2695	PALE	47	GB	1702.3	1704.3	26.2	70.0			QL=5 ST=2 TYP=5
	1415	SGMR	4	S/F	1704.3	1705.0	7.7	30.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	1704.6	1705.1	4.9	23.0			QL=5 ST=2 TYP=3
	15400	PALE	4	S/F	1705.3	1705.5	3.0	41.0			QL=5 ST=2 TYP=3
	9400	HUAN	2	S/F	1757.6	1759.6	3.4	4.8	2.2		0
	2800	OTTA	3	S	1814.0	1815.0	6.0	27.6	6.9		
	9400	HUAN	3	S	1814.2	1815.2	2.3	79.0	31.7		R
	8800	SGMR	47	GB	1814.5	1815.0	1.1	92.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1814.5	1815.1	5.0	119.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1814.5	1815.1	4.0	130.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1814.5	1815.3	5.1	260.0			QL=6 ST=2 TYP=5
	2695	PALE	8	S	1814.6	1815.0	1.7	27.0			QL=6 ST=2 TYP=3
	4995	SGMR	47	GB	1814.6	1815.0	1.0	76.0			QL=6 ST=2 TYP=5
	15400	SGMR	8	S	1814.6	1815.0	.5	40.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	1814.6	1815.1	2.5	80.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	1814.8	1815.1	1.7	22.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1814.8	1815.1	.3D	19.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1814.8	1815.1	1.3	30.0			QL=6 ST=2 TYP=3
	610	PALE	8	S	1815.0	1815.1	1.1	13.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	1816.5	1816.5	8.0	9.7	4.6		R
	9400	HUAN	21	GRF	1839.6	1900.1	64.7	24.2	9.7		R
	9400	HUAN	4	S/F	1848.8	1852.6	8.6	74.2	35.7		R
	8800	PALE	47	GB	1849.1	1850.3	12.5	72.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1849.6	1852.6	13.5	90.0			QL=6 ST=2 TYP=5
	15400	PALE	4	S/F	1850.1	1850.3	7.0	20.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1852.5	1854.1	1.6D	36.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1852.6	1852.8	1.2	17.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1854.5	1854.6	4.6	22.0			QL=6 ST=2 TYP=3
	2800	OTTA	4	S/F	1906.0	1910.7	7.0	19.4	7.0		
	8800	SGMR	47	GB	1908.3	1910.5	4.8	169.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1908.6	1910.6	4.0	100.0			QL=6 ST=2 TYP=5
	9400	HUAN	3	S	1908.8	1910.9	4.4	137.0	46.7		R
	4995	PALE	47	GB	1909.3	1910.6	4.7	100.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1909.3	1910.8	6.5	200.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	1909.6	1910.6	4.2	81.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	1910.3	1910.6	.8	119.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1910.3	1910.8	3.0	230.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1910.3	1910.8	1.2	70.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	1910.6	1911.0	1.2	13.0			QL=6 ST=2 TYP=3
	610	PALE	8	S	1910.6	1911.0	1.2	11.0			QL=6 ST=2 TYP=3
	9400	HUAN	45	C	1932.3	1933.2U	7.1	251.5	94.9		R
	8800	SGMR	49	GB	1932.5	1933.1	6.1	560.0			QL=6 ST=2 TYP=6
	2800	OTTA	45	C	1932.5	1934.0	8.0	104.0	35.2		
	245	SGMR	49	GB	1932.6	1933.1	5.7	1000.0			QL=6 ST=2 TYP=6
	4995	SGMR	47	GB	1932.6	1933.1	5.9	300.0			QL=6 ST=2 TYP=5
	8800	PALE	49	GB	1932.6	1933.1	6.9	700.0			QL=6 ST=2 TYP=6
	4995	PALE	47	GB	1932.6	1933.1	7.0	310.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1932.6	1934.0	5.7	119.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	1932.6	1934.1	7.0	119.0			QL=6 ST=2 TYP=5
	100	HIRA	46	C	1932.7	1933.8	10.8	2600.0	304.0		WL,SUNRISE
	15400	SGMR	47	GB	1932.8	1933.1	5.2	340.0			QL=6 ST=2 TYP=5
	245	PALE	49	GB	1932.8	1933.3	7.2	1199.0			QL=6 ST=2 TYP=6
	15400	PALE	47	GB	1932.8	1933.3	6.8	340.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	1932.8	1934.1	8.3	189.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1932.8	1934.1	7.7	169.0			QL=6 ST=2 TYP=5
	200	HIRA	46	C	1932.9	1934.0	5.3	3400.0U	93.0U		ML,SUNRISE
	410	PALE	49	GB	1933.0	1933.3	7.3	670.0			QL=6 ST=2 TYP=6
	610	SGMR	47	GB	1933.0	1934.1	7.8	89.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	1933.0	1934.3	9.6	94.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1933.1	1933.3	5.2	239.0			QL=6 ST=2 TYP=5
	2800	OTTA	23	GRF	1955.0	2330.0	318.0	45.0	21.8		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	9400	HUAN	20	GRF	1957.5	2005.9	18.2	11.3	6.2		0
	9400	HUAN	20	GRF	2028.5	2034.3	11.4	4.8	3.0		0
	9400	HUAN	1	S	2045.5	2047.0	3.3	7.2	3.2		0
	9400	HUAN	2	S/F	2056.6	2058.2	3.4	12.9	6.1		0
	9400	HUAN	1	S	2104.1	2105.7	2.4	8.1	4.8		0
	9400	HUAN	2	S/F	2117.3	2122.4	7.4	9.7	5.1		0
	1000	TYKW	21	GRF	2120.0	2310.0	440.0	8.0	4.0		
┌	3750	TYKW	28	PRE	2130.0	2156.0	26.0	6.0	4.0		
├	2000	TYKW	28	PRE	2130.0	2201.0	31.0	4.0	2.0		
└	9400	TYKW	28	PRE	2136.0	2200.0	25.0	14.0	6.0		
	1000	TYKW	8	S	2138.8	2138.9	.2	4.0	1.0		
┌	9400	TYKW	5	S	2142.0	2142.8	2.0	15.0	4.0		
├	8800	SGMR	8	S	2142.6	2142.8	.2	24.0			QL=6 ST=2 TYP=3
├	15400	SGMR	8	S	2142.6	2142.8	.2	34.0			QL=6 ST=2 TYP=3
└	8800	PALE	8	S	2142.8	2142.8	1.2	24.0			QL=6 ST=2 TYP=3
┌	2000	TYKW	45	C	2144.0	2147.2	8.0	69.0	13.0		
├	3750	TYKW	45	C	2144.0	2147.2	9.0	119.0	24.0		
├	2800	OTTA	46F	C	2144.0	2147.0	8.0	110.0	27.0		
├	1000	TYKW	45	C	2145.0	2147.3	7.0	19.0	7.0		
├	9400	TYKW	45	C	2145.0	2147.3	8.0	143.0	35.0		
├	4995	SGMR	47	GB	2145.3	2147.1	5.5	130.0			QL=6 ST=2 TYP=5
├	2695	PALE	47	GB	2145.5	2147.1	5.8	100.0			QL=6 ST=2 TYP=5
├	9400	HUAN	45	C	2145.5	2147.3	5.9	158.0	46.1		R
├	2695	SGMR	47	GB	2145.6	2147.1	4.5	100.0			QL=6 ST=2 TYP=5
├	4995	PALE	47	GB	2145.6	2147.1	6.2	130.0			QL=6 ST=2 TYP=5
├	8800	SGMR	47	GB	2145.8	2147.1	5.2	130.0			QL=6 ST=2 TYP=5
├	8800	PALE	47	GB	2145.8	2147.3	6.3	200.0			QL=6 ST=2 TYP=5
├	500	HIRA	45	C	2145.9U	2146.7U	5.0U	7.0	4.0		WR
├	1415	SGMR	8	S	2146.1	2147.1	1.7	40.0			QL=6 ST=2 TYP=3
├	15400	PALE	47	GB	2146.3	2147.3	6.0	110.0			QL=6 ST=2 TYP=5
├	17000	NOBE	7	C	2146.4	2147.3	6.0	92.0			L
├	245	PALE	8	S	2146.5	2146.6	1.3	29.0			QL=6 ST=2 TYP=3
├	245	SGMR	8	S	2146.5	2146.6	.1	23.0			QL=6 ST=2 TYP=3
├	15400	SGMR	47	GB	2146.5	2147.1	5.5	119.0			QL=6 ST=2 TYP=5
├	1415	PALE	4	S/F	2146.5	2147.3	2.3	34.0			QL=6 ST=2 TYP=3
├	610	SGMR	4	S/F	2146.8	2147.6	3.8	23.0			QL=6 ST=2 TYP=3
├	610	PALE	8	S	2147.0	2147.1	1.5	16.0			QL=6 ST=2 TYP=3
└	200	HIRA	46	C	2149.0	2149.5	1.4	24.0	8.0		ML
	1000	TYKW	29	PBI	2152.0		7.0	3.0	1.0		
┌	3750	TYKW	45	C	2156.0	2208.4	19.0	86.0	28.0		
├	2000	TYKW	45	C	2201.0	2208.7	9.0	44.0	20.0		
├	9400	TYKW	45	C	2201.0	2208.7	14.0	83.0	34.0		
├	2800	OTTA	46F	C	2201.0	2208.3	12.0	59.0	25.0		
├	2695	PALE	4	S/F	2201.1	2203.5	15.5	46.0			QL=5 ST=2 TYP=3
├	9400	HUAN	45	C	2201.1	2208.6	13.1	74.2	37.6		R
├	4995	PALE	4	S/F	2201.6	2203.3	12.5	41.0			QL=5 ST=2 TYP=3
├	4995	SGMR	47	GB	2201.6	2203.3	16.5	52.0			QL=6 ST=2 TYP=5
├	1000	TYKW	5	S	2202.0	2208.7	10.0	12.0	4.0		
├	8800	PALE	47	GB	2202.0	2208.8	12.1	70.0			QL=5 ST=2 TYP=5
├	1415	PALE	4	S/F	2202.0	2208.8	8.3	32.0			QL=5 ST=2 TYP=3
├	15400	PALE	4	S/F	2202.0	2208.8	12.1	41.0			QL=5 ST=2 TYP=3
├	610	PALE	4	S/F	2202.0	2209.0	8.0	11.0			QL=5 ST=2 TYP=3
├	8800	SGMR	47	GB	2202.1	2203.6	11.7	42.0			QL=6 ST=2 TYP=5
├	2695	SGMR	47	GB	2202.6	2203.5	7.0	43.0			QL=6 ST=2 TYP=5
├	15400	SGMR	8	S	2203.1	2203.5	1.5	30.0			QL=6 ST=2 TYP=3
├	1415	SGMR	20	GRF	2206.0	2208.6	3.1	26.0			QL=6 ST=2 TYP=2
└	610	SGMR	8	S	2208.1	2208.8	.7	21.0			QL=6 ST=2 TYP=3
┌	2000	TYKW	30	PBI	2210.0		370.0	12.0	6.0		
└	1000	TYKW	30	PBI	2212.0		40.0	3.0	1.5		
	2000	TYKW	45	C	2212.0	2213.9	3.0	3.0	1.0		
┌	3750	TYKW	30	PBI	2215.0		360.0	22.0	12.0		
└	9400	TYKW	30	PBI	2215.0		435.0	16.0	8.0		
┌	3750	TYKW	5	S	2216.0	2217.0	2.0	3.0	1.0		
└	2000	TYKW	5	S	2217.0	2218.0	2.0	4.0	1.5		
┌	100	HIRA	46	C	2230.4	2231.0	.8	940.0	332.0		ML
├	2000	TYKW	5	S	2230.5	2231.1	2.0	6.0	1.5		
├	9400	TYKW	5	S	2230.5	2231.2	4.0	37.0	11.0		
├	3750	TYKW	5	S	2230.5	2231.3	3.5	10.0	5.0		
├	1000	TYKW	5	S	2230.9	2231.1	.5	2.5	1.0		
▼	8800	PALE	4	S/F	2231.0	2231.1	2.6	47.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	4995	SGMR	8	S	2231.0	2231.3	.5	30.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2231.1	2231.1	2.9	31.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2231.1	2231.3	2.0	28.0			QL=6 ST=2 TYP=3
	3750	TYKW	29	PBI	2234.0		10.0	2.0	1.0		
	3750	TYKW	28	PRE	2255.0	2300.0	20.0	10.0	6.0		
	9400	TYKW	45	C	2255.0U	2308.9	65.0U	127.0	45.0		RAIN
	2000	TYKW	21	GRF	2255.0	2332.4	110.0	7.0	2.5		
	8800	PALE	47	GB	2305.3	2306.6	20.8	87.0			QL=6 ST=2 TYP=5
	17000	NOBE	7	C	2305.9	2308.9	37.0	280.0			R
	15400	PALE	47	GB	2306.1	2306.3	20.0	69.0			QL=6 ST=2 TYP=5
	35000	NAGO	22	GRF	2310.0	2315.0	120.0	27.0			
	4995	PALE	47	GB	2314.3	2315.1	11.8	37.0			QL=6 ST=2 TYP=5
	2695	SGMR	4	S/F	2314.6	2316.0	3.9	49.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2314.8	2315.1	.3	37.0			QL=4 ST=2 TYP=3
	3750	TYKW	45	C	2315.0	2324.3	44.0	40.0	22.0		
	3750	TYKW			2315.0	2329.0		40.0			
	4995	SGMR	4	S/F	2317.5	2318.8	4.8	43.0			QL=4 ST=2 TYP=3
	208	VORO	46	C	2321.0	2325.0	4.0	78.0			
	2695	LEAR	4	S/F	2322.0E	2322.5	8.0D	38.0			QL=5 ST=2 TYP=3
	4995	LEAR	47	GB	2322.0E	2322.5	8.0D	110.0			QL=5 ST=2 TYP=5
	8800	LEAR	47	GB	2322.0E	2322.5	8.0D	139.0			QL=5 ST=2 TYP=5
	200	HIRA	46	C	2322.1	2324.5	2.6	64.0	12.0		ML
	245	LEAR	8	S	2322.8	2323.1	1.0	37.0			QL=5 ST=2 TYP=3
	245	PALE	8	S	2322.8	2323.5	1.5	38.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	2326.1	2326.6	22.2	93.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2326.1	2326.6	30.7	130.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2326.1	2328.3	30.7	66.0			QL=6 ST=2 TYP=5
	1000	TYKW	21	GRF	2345.0	0005.0	50.0	1.5	.7		
	3750	TYKW	30	PBI	2359.0		39.0	10.0	4.0		
12	200	GORK	44	NS	0257.0E		573.0D		5.0		
	100	GORK	44	NS	0257.0E		573.0D		30.0		
	33	UPIC	44	NS	0330.0E		900.0D				
	536	ONDR	44	NS	0553.0E	1029.0U	498.0D	175.0U			
	260	ONDR	44	NS	0553.0E	1209.0U	489.0D	152.0U			
	127	TORN	44	NS	0600.0E		58.0D		280.0		V1,DISTURBED
	234	POTS	43	NS	0823.0	1045.0	397.0D	200.0			
	245	SGMR	44	NS	0940.0E						QL=6 ST=1 TYP=1
	410	SGMR	44	NS	0940.0E	0940.0		63.0			QL=6 ST=1 TYP=1
	113	POTS	43	NS	1002.0	1222.0	298.0D	600.0			
	29	UPIC	43	NS	1240.0		350.0D				
	245	SGMR	43	NS	1259.3						QL=6 ST=3 TYP=1
	410	SGMR	43	NS	1259.3						QL=6 ST=3 TYP=1
	610	SGMR	43	NS	1259.3	1326.8		30.0			QL=6 ST=3 TYP=1
	100	HIRA	44	NS	1925.0E	2032.0	865.0D	1100.0	280.0		SL
	208	VORO	44	NS	2100.0E		360.0D		40.0		
	9400	TYKW	30	PBI	0000.0		53.0	24.0	14.0		
	208	VORO	46	C	0013.0	0015.0	6.0	200.0D			
	208	VORO			0013.0	0018.0		200.0D			
	1000	TYKW	45	C	0015.0	0016.5	5.0	8.0	1.5		
	3750	TYKW	5	S	0015.5	0016.5	3.5	26.0	9.0		
	9400	TYKW	5	S	0015.5U	0016.5U	6.0U	20.0U	7.0		
	2000	TYKW	5	S	0015.5	0016.9	6.0	9.0	2.0		
	245	PALE	49	GB	0015.6	0015.8	4.0	78.0			QL=5 ST=2 TYP=6
	4995	PALE	8	S	0016.1	0016.5	2.0	29.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0016.3	0016.8	1.8	20.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0016.5	0016.6	1.8	37.0			QL=6 ST=2 TYP=3
	3750	TYKW	29	PBI	0019.0		12.0	3.0	1.5		
	1000	TYKW	29	PBI	0020.0		12.0	1.0	.5		
	3750	TYKW	5	S	0042.0	0042.3	1.5	7.0	2.5		
	2840	PEKG	45	C	0043.0	0059.9	50.0	145.0	36.0		
	3750	TYKW	28	PRE	0045.0	0054.0	9.0	4.0	2.0		
	4995	MANI	47	GB	0045.3	0100.0	18.5	360.0			QL=6, ST=2 TYP=5
	3750	TYKW	5	S	0047.0	0049.2	6.0	18.0	5.0		
	4995	PALE	8	S	0048.8	0049.3	1.8	21.0			QL=6 ST=2 TYP=3
	2930	VORO	45	C	0052.0	0100.0	8.0	77.0			
	1415	MANI	47	GB	0052.0	0101.1	15.8	81.0			QL=6 ST=2 TYP=5
	245	LEAR	49	GB	0052.3	0055.0	15.5	350.0			QL=6 ST=2 TYP=6
	8800	LEAR	47	GB	0052.8	0055.1	18.8	169.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	9400	TYKW			0053.0	0055.1		152.0			
	9400	TYKW	45	C	0053.0	0059.8	12.0	395.0	50.0		
	208	VORO	41	F	0053.0	0057.0	12.0	200.0D			
	208	VORO			0053.0	0104.0		200.0D			
	2695	LEAR	47	GB	0053.5	0055.1	18.8	42.0			QL=6 ST=2 TYP=5
	1000	TYKW			0053.5	0055.2		72.0			
	200	HIRA	42	SER	0053.5	0059.3	12.0	2700.0			ML
	1000	TYKW	45	C	0053.5	0100.0	14.5	87.0	19.0		
	100	HIRA	42	SER	0053.9	0059.0	27.7	10000.0D			
	3750	TYKW			0054.0	0055.1		83.0			
	2000	TYKW	5	S	0054.0	0055.2	4.0	22.0	6.0		
	3750	TYKW	45	C	0054.0	0059.1	9.0	185.0	35.0		
	4995	PALE	47	GB	0054.1	0055.1	8.7	130.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	0054.3	0055.1	2.5	46.0			QL=6 ST=2 TYP=3
	8800	PALE	49	GB	0054.3	0055.1	11.5	219.0			QL=6 ST=2 TYP=6
	4995	LEAR	47	GB	0054.3	0055.1	15.7	119.0			QL=6 ST=2 TYP=5
	9395	PEKG	46	C	0054.3	0059.8	13.7	210.0	26.0		
	17000	NOBE	7	C	0054.5	0100.8	12.0	163.0			R
	15400	LEAR	47	GB	0054.6	0055.1	17.2	63.0			QL=6 ST=2 TYP=5
	500	HIRA	1	S	0054.6	0055.2	3.0	7.0	4.0		WR
	1415	LEAR	47	GB	0054.6	0055.3	14.9	17.0			QL=6 ST=2 TYP=5
	2695	MANI	47	GB	0054.6	0101.0	11.7	79.0			QL=6 ST=2 TYP=5
	8800	MANI	47	GB	0054.6	0101.1	8.5	280.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0054.8	0055.1	1.7	390.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	0054.8	0055.1	7.5	77.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	0054.8	0055.1	1.8	28.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0054.8	0055.3	9.7	9.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	0054.8	0055.3	14.7	10.0			QL=6 ST=2 TYP=5
	610	PALE	8	S	0055.1	0055.3	1.4	16.0			QL=6 ST=2 TYP=3
	610	MANI	47	GB	0055.5	0102.0	10.5	69.0			QL=6 ST=2 TYP=5
	2000	TYKW	45	C	0058.5	0100.0	7.0	79.0	24.0		
	500	HIRA	45	C	0058.7	0104.3	10.0	140.0	15.0		WL
	35000	NAGO	5	S	0059.0	0100.0	2.0	70.0			
	410	PALE	47	GB	0059.1	0100.5	7.0	320.0			QL=6 ST=2 TYP=5
	3750	TYKW	31	ABS	0103.0	0132.0	155.0	-32.0	-16.0		
	3750	TYKW	5	S	0103.8	0104.1	1.0	3.0	1.0		
	9400	TYKW	31	ABS	0105.0	0140.0	260.0	-37.0	-16.0		
	2000	TYKW	31	ABS	0105.5	0128.0	160.0	-23.0	-9.0		
	1000	TYKW	31	ABS	0108.0	0128.0	81.0	-8.0	-4.5		
	1000	TYKW	45	C	0133.6	0134.0	.9	6.0	2.0		
	245	LEAR	4	S/F	0139.3	0144.8	5.5	49.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB.	0141.0	0141.1	3.5	28.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	0208.0	0214.0	15.0	4.0	2.0		
	2000	TYKW	5	S	0225.0	0226.5	4.0	1.5	.5		
	3750	TYKW	45	C	0226.0	0226.5	2.0	3.0	1.5		
	9400	TYKW	5	S	0226.0	0226.9	3.0	59.0	17.0		
	9395	PEKG	3	S	0226.0	0227.2	2.4	38.8	10.0		
	8800	PALE	47	GB	0226.6	0226.8	2.5	70.0			QL=6 ST=2 TYP=5
	4995	PALE	8	S	0226.6	0226.8	1.4	18.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0226.6	0227.1	1.7	56.0			QL=6 ST=2 TYP=5
	17000	NOBE	1	S	0226.7	0226.9	1.0	55.0			R
	15400	PALE	47	GB	0226.8	0227.1	1.7	70.0			QL=6 ST=2 TYP=5
	2840	PEKG	3	S	0228.0	0228.9	1.2	42.5			
	9400	TYKW	30	PBI	0229.0		90.0	6.0	3.0		
	9400	TYKW	45	C	0232.5	0235.3	6.0	8.0	2.0		
	2000	TYKW	21	GRF	0244.0	0249.0	40.0	4.0	2.0		
	245	PALE	8	S	0245.6	0245.6	1.2	26.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0246.0U	0247.0	3.0U	4.0	2.0U		INTERFERENCE
	9400	TYKW	5	S	0250.0U	0253.0U	10.0U	6.0	2.0		
	3750	TYKW	5	S	0252.7	0253.1	1.5	6.0	2.0		
	2000	TYKW	45	C	0253.5	0254.0	1.5	6.0	3.0		
	2000	TYKW	29	PBI	0255.0		5.0	2.0	1.0		
	9395	PEKG	3	S	0302.0	0302.9	3.0	21.5	11.3		
	2840	PEKG	4	S/F	0302.5	0303.2	1.7	17.1			
	200	GORK	41	F	0307.4	0315.7	11.3	420.0			
	200	GORK			0307.4	0317.5		420.0			
	9400	TYKW			0310.0	0310.6		57.0			
	3750	TYKW	45	C	0310.0	0311.0	9.0	76.0	7.0		
	9400	TYKW	45	C	0310.0	0317.9	14.0	60.0	26.0		
	2840	PEKG	40	F	0310.0	0311.0	9.0	18.4			

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	35000	NAGO	20	GRF	0310.0	0313.0	5.0	7.0			
	9395	PEKG	4	S/F	0310.0	0318.0	18.0	29.5	2.6		
	8800	LEAR	47	GB	0310.1	0310.6	24.9	42.0			QL=6 ST=2 TYP=5
	500	HIRA	42	SER	0310.2	0313.6	8.0	300.0			ML
	1415	PALE	47	GB	0310.3	0310.6	9.7	80.0			QL=5 ST=2 TYP=5
	245	LEAR	49	GB	0310.3	0310.6	8.3	130.0			QL=6 ST=2 TYP=6
	410	LEAR	47	GB	0310.3	0310.6	9.5	119.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0310.3	0310.6	9.7	230.0			QL=5 ST=2 TYP=5
	650	GORK	46	C	0310.3	0310.8	8.2	68.0			
	2695	LEAR	47	GB	0310.3	0311.0	8.0	97.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0310.3	0312.3	12.7	41.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	0310.3	0312.4	8.0	104.0	7.0		
	1000	TYKW	45	C	0310.3	0313.1	8.2	200.0	8.0		
	15400	LEAR	4	S/F	0310.3	0313.1	11.3	46.0			QL=6 ST=2 TYP=3
	200	HIRA	41	F	0310.3	0317.4	8.3	800.0			WL
	17000	NOBE	7	C	0310.4	0311.0	4.0	60.0			R
	610	PALE	47	GB	0310.5	0310.8	9.5	67.0			QL=5 ST=2 TYP=5
	1415	LEAR	47	GB	0310.5	0310.8	3.5	48.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	0310.5	0311.0	8.1	99.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	0310.8	0312.3	9.2	76.0			QL=5 ST=2 TYP=5
	100	HIRA	42	SER	0311.2	0318.2	18.7	1500.0			WL
	4995	PALE	4	S/F	0312.1	0312.1	7.9	41.0			QL=5 ST=2 TYP=3
	4995	PALE	4	S/F	0312.1	0312.1		41.0			QL=5 ST=2 TYP=3
	8800	PALE	4	S/F	0312.1	0312.1	7.9	40.0			QL=5 ST=2 TYP=3
	245	PALE	49	GB	0313.6	0313.8	6.4	890.0			QL=5 ST=2 TYP=6
	17000	NOBE	20	GRF	0317.3	0321.2	40.0	40.0			R
	35000	NAGO	20	GRF	0318.0	0323.0	15.0	5.0			
	1000	TYKW	31	ABS	0318.5	0331.0	42.0	-2.5	-1.5		
	9100	GORK	20	GRF	0321.0E		45.0D				
	2950	GORK	20	GRF	0323.5	0336.0	59.7	6.6			
	9400	TYKW	29	PBI	0324.0		30.0	15.0	6.0		
	2000	TYKW	5	S	0401.7	0401.9	.7	3.0	1.0		
	3750	TYKW	5	S	0401.8	0402.0	.5	6.0	2.0		
	9400	TYKW	5	S	0403.0	0403.6	6.0	7.0	3.0		
	3750	TYKW	5	S	0427.0	0428.7	4.0	3.0	1.0		
	1000	TYKW	45	C	0434.0	0434.6	2.5	18.0	3.0		
	9100	GORK	23	GRF	0440.0		460.0D				
	3750	TYKW	5	S	0445.0	0459.5	22.0	25.0	14.0		
	2950	GORK	23	GRF	0447.6	1030.0	453.0D	1200.0			
	6100	KISV	28	PRE	0448.0	0622.7	265.0	83.0			
	2840	PEKG	5	S	0448.0	0621.2	188.0	147.7			
	2000	TYKW			0449.0	0601.6		10.0			
	2000	TYKW	45	C	0449.0	0625.4	131.0	44.0	21.0		
	9395	PEKG	5	S	0450.0	0623.0	186.0	80.8	20.2		
	9400	TYKW	45	C	0451.0	0500.0	34.0	20.0	8.0		
	3750	TYKW	30	PBI	0507.0		30.0	18.0	18.0		
	1000	TYKW	21	GRF	0512.0	0623.0	245.0D	10.0	6.0D		
	4995	ATHN	4	S/F	0519.6	0606.1	130.9	29.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0521.3	0603.5	129.2	37.0			QL=6 ST=2 TYP=3
	1000	TYKW	8	S	0522.1	0522.2	.2	8.0	2.0		
	15000	KISV	28	PRE	0524.0E	0858.0	228.0D	135.0			
	1000	TYKW	8	S	0524.7	0524.8	.2	8.0	1.0		
	2695	ATHN	4	S/F	0529.1	0606.8	42.4	17.0			QL=6 ST=2 TYP=3
	8800	LEAR	20	GRF	0536.6	0621.3	85.4	119.0			QL=6 ST=2 TYP=2
	3750	TYKW	45	C	0537.0	0621.4	80.0	92.0	54.0		
	3100	CRIM	20	GRF	0537.0	0621.2	97.0	61.0	20.0		
	4995	LEAR	20	GRF	0537.3	0621.5	82.3	100.0			QL=6 ST=2 TYP=2
	2695	LEAR	20	GRF	0538.0	0621.3	79.3	40.0			QL=6 ST=2 TYP=2
	9400	TYKW	28	PRE	0539.0	0559.0	21.0	14.0	8.0		
	1415	LEAR	20	GRF	0541.3	0625.6	68.0	37.0			QL=6 ST=2 TYP=2
	9400	TYKW			0600.0	0604.5		61.0			
	9400	TYKW	45	C	0600.0	0622.8	40.0	103.0	60.0		
	11800	BERN	47	GB	0600.0U	0952.0	480.0U	3500.0U			
	35000	BERN	47	GB	0600.0U	0952.0	480.0U	1430.0			
	19600	BERN	47	GB	0600.0U	0952.2	480.0U	1740.0			
	8400	BERN	47	GB	0600.0U	0958.2U	480.0U	3200.0D			
	9100	GORK	1	S	0603.3	0603.5	.6	25.0	12.0		
	17000	NOBE	1	S	0603.3	0603.6	1.0	58.0			R
	17000	NOBE	21	GRF	0603.3	0715.0	120.0D	45.0			R
	15000	KISV	4	S/F	0603.4	0603.6	.5	65.0			

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	15400	LEAR	20	GRF	0615.3	0647.3	36.3	44.0			QL=6 ST=2 TYP=2
	2950	GORK	20	GRF	0616.0	0621.5	13.4	18.7			
	1000	TYKW	5	S	0624.0	0625.4	4.0	8.0	1.5		
	9100	GORK	2	S/F	0627.0	0628.7	3.1	25.0			
	9400	TYKW	30	PBI	0640.0		168.0D	65.0	50.0D		
	9400	TYKW	5	S	0641.0	0644.0	7.0	8.0	3.0		INTERFERENCE
	113	POTS	4	S/F	0648.5	0648.8	1.0	200.0	30.0		III
┌	1000	TYKW	45	C	0649.8	0650.8	2.5	13.0	3.5		
└	930	BORD	41	F	0650.8	0650.8	.7	20.0	2.0		
┌	3750	TYKW	30	PBI	0657.0		154.0D	50.0	38.0D		
└	2000	TYKW	30	PBI	0700.0		144.0D	29.0	25.0D		
	9400	TYKW	5	S	0709.0	0720.0	23.0	23.0	8.0		
	9500	POTS	1	S	0716.6	0717.0	.8	5.4			
	3000	POTS	42	SER	0717.8	0727.4	12.0	15.0			
	3750	TYKW	21	GRF	0732.0	0736.0U	35.0U	6.0U	3.0U		INTERFERENCE
	2000	TYKW	21	GRF	0732.0U	0739.0	40.0U	4.0U	2.0U		INTERFERENCE
├	4995	ATHN	47	GB	0746.6	0747.1	3.0	66.0			QL=6 ST=2 TYP=5
├	8800	ATHN	4	S/F	0746.6	0747.1	3.0	17.0			QL=6 ST=2 TYP=3
├	3750	TYKW	5	S	0747.0U	0748.2	6.0U	32.0	6.0U		
├	9400	TYKW	45	C	0747.0U	0748.2	5.0U	31.0U	10.0U		
├	2000	TYKW	45	C	0747.0U	0750.1	4.0U	12.0	3.0U		
├	8800	LEAR	8	S	0747.6	0747.8	1.0	34.0			QL=6 ST=2 TYP=3
├	9100	GORK	2	S/F	0747.7	0748.0	4.1	30.0			
├	9500	POTS	29	PBI	0747.8	0748.0	7.2	18.0			
├	6100	KISV	4	S/F	0747.8	0748.0	4.0	26.0U			
├	4995	LEAR	8	S	0747.8	0748.1	1.3	35.0			QL=6 ST=2 TYP=3
├	3100	CRIM	1	S	0747.8	0748.1	3.0	21.0	7.0		
├	2695	LEAR	8	S	0747.8	0748.6	1.3	17.0			QL=6 ST=2 TYP=3
├	2950	GORK	2	S/F	0747.8	0748.6	1.4	13.5			
├	3000	POTS	4	S/F	0748.0	0748.5	4.0	16.0			
└	1470	POTS	8	S	0748.0	0748.8	1.5	9.0			
┌	200	HIRA	42	SER	0751.8	0815.2	28.3	2400.0			ML
├	100	HIRA	42	SER	0808.7	0815.3	13.0	3200.0			SL
└	113	POTS	42	SER	0809.1	0816.2	11.0	700.0	70.0		III
├	950	GORK	4	S/F	0812.6	0818.0	12.0	20.0			
┌	9400	TYKW	45	C	0813.0U	0814.2	11.0U	53.0U	12.0U		
├	2650	DWIN	2	S/F	0813.0	0813.0	10.0	60.0	30.0		
├	3100	CRIM	1	S	0813.1	0814.1	9.0	75.0	25.0		
├	245	LEAR	47	GB	0813.3	0814.5	7.0	390.0			QL=6 ST=2 TYP=5
├	2950	GORK	4	S/F	0813.4	0814.2	3.0	70.0			
├	650	GORK	46	C	0813.5	0813.7	11.8	26.0			
├	8800	LEAR	47	GB	0813.5	0813.8	3.3	74.0			QL=6 ST=2 TYP=5
├	3750	TYKW	45	C	0813.5	0814.2	12.0U	71.0	14.0U		
├	6100	KISV	46	C	0813.5	0814.2	7.0	52.0			
├	2000	TYKW	45	C	0813.5	0814.3	13.0U	31.0	8.0U		
├	6100	KISV			0813.5	0815.3		22.0			
├	6100	KISV			0813.5	0818.0		22.0			
├	650	GORK			0813.5	0818.1		15.0			
├	1000	TYKW	45	C	0813.5	0818.4	15.0	23.0	7.0		
├	9100	GORK	46	C	0813.6	0814.1	.5	70.0			
├	2695	ATHN	47	GB	0813.6	0814.1	7.7	62.0			QL=6 ST=2 TYP=5
├	4995	ATHN	47	GB	0813.6	0814.1	7.7	78.0			QL=6 ST=2 TYP=5
├	2695	LEAR	47	GB	0813.6	0814.3	7.2	65.0			QL=6 ST=2 TYP=5
├	4995	LEAR	47	GB	0813.6	0814.3	6.7	83.0			QL=6 ST=2 TYP=5
├	9100	GORK			0813.6	0818.0		34.0			
├	610	LEAR	4	S/F	0813.6	0818.0	9.0	19.0			QL=6 ST=2 TYP=3
├	9395	PEKG	45	C	0813.7	0814.3	10.3	46.3	21.0		
├	2840	PEKG	20	GRF	0813.7	0814.3	11.3	118.7			
├	8800	ATHN	47	GB	0813.8	0814.1	7.5	61.0			QL=6 ST=2 TYP=5
├	1415	ATHN	4	S/F	0813.8	0814.1	7.5	22.0			QL=6 ST=2 TYP=3
├	200	GORK	4	S/F	0813.8	0815.3	3.0	1440.0			
├	9500	POTS	4	S/F	0814.0U	0818.0	11.0U	25.0			
├	3000	POTS	4	S/F	0814.0	0818.5	11.0U	32.0			
├	1470	POTS	4	S/F	0814.0U	0818.5	11.0U	18.0			
├	15000	KISV	2	S/F	0814.0	0814.3	2.0	24.0			
├	204	IZMI	41	F	0814.0	0815.0	5.0	1800.0			
├	234	POTS	42	SER	0814.0	0817.9	5.5	440.0	50.0		III
├	1415	LEAR	4	S/F	0814.0	0818.1	8.1	27.0			QL=6 ST=2 TYP=3
├	410	LEAR	47	GB	0814.1	0817.8	8.5	68.0			QL=6 ST=2 TYP=5
└	100	GORK	46	C	0815.0	0815.3	1.7	740.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	100	GORK			0815.0	0816.1		1000.0D			
	2950	GORK	4	S/F	0817.5	0818.3	2.5	12.0			
	2840	PEKG	47	GB	0850.0	0952.6	80.0	2145.0	1025.0		
	3750	TYKW	28	PRE	0855.0	0909.0	14.0	22.0U	12.0U		
	9400	TYKW	28	PRE	0855.0	0912.0	17.0	20.0U	10.0U		
	2695	ATHN	49	GB	0857.3	0920.5	114.2	310.0			QL=6 ST=2 TYP=6
	3100	CRIM	28	PRE	0858.0	0912.0	14.0	22.0	7.0		
	4995	ATHN	49	GB	0858.6	0921.1	112.9	760.0			QL=6 ST=3 TYP=6
	8800	ATHN	49	GB	0858.6	0921.1	112.9	1199.0			QL=6 ST=2 TYP=6
	2000	TYKW	28	PRE	0900.0	0912.0	12.0	4.0	2.0		
	3000	POTS	47	GB	0900.0		310.0	1960.0			
	9395	PEKG	28	PRE	0900.0		18.0	151.0	26.0		
	9500	POTS	47	GB	0900.0	0945.5	310.0	2400.0			
	9500	POTS			0900.0	0952.0		2400.0			
	1470	POTS	47	GB	0903.0	1015.5	317.0	480.0			
	3750	TYKW	47	GB	0909.0	0921.6	16.0	530.0	165.0		INTERFERENCE
	1415	ATHN	49	GB	0910.5	0921.3	101.0	80.0			QL=6 ST=2 TYP=6
	1000	TYKW	45	C	0912.0	0913.7	5.0D	22.0	4.0D		
	9400	TYKW	47	GB	0912.0	0920.9	13.0	1130.0	270.0		INTERFERENCE
	2000	TYKW	45	C	0912.0	0921.6	12.0D	180.0	70.0D		
	2650	DWIN	49	GB	0912.0		240.0	500.0D			
	8800	LEAR	49	GB	0912.0	0920.8	25.0D	980.0			QL=4 ST=2 TYP=6
	6100	KISV			0912.0	0921.0		580.0D			
	15000	KISV			0912.0	0921.0		990.0			
	15000	KISV			0912.0	0935.0		76.0			
	15000	KISV			0912.0	0937.2		1170.0			
	6100	KISV			0912.0	0938.0		600.0D			
	6100	KISV			0912.0	0940.5		1110.0			
	15000	KISV			0912.0	0941.1		2700.0			
	808	ONDR	47	GB	0912.0	0945.7U	196.0	187.0U			
	9100	GORK	47	GB	0912.0	0945.7	78.0	3840.0			
	15000	KISV	47	GB	0912.0	0945.7	47.0	2990.0			
	6100	KISV			0912.0	0945.7		1100.0			
	6100	KISV			0912.0	0947.5		1000.0			
	15000	KISV			0912.0	0947.5		2380.0			
	15000	KISV			0912.0	0951.9		2950.0			
	2950	GORK	47	GB	0912.0	0952.5	70.8	2229.0			
	6100	KISV	47	GB	0912.0	0952.5E	61.0	1160.0D			
	3100	CRIM	47	GB	0912.0	0956.5	96.0	2037.0	679.0		
	930	BORD	40	F	0912.0	1015.8	324.0	606.0	140.0		
	930	BORD			0912.0	1115.0		483.0			
	4995	LEAR	49	GB	0912.1	0920.8	24.9D	710.0			QL=4 ST=2 TYP=6
	2695	LEAR	47	GB	0912.8	0935.6	24.2D	470.0			QL=4 ST=2 TYP=5
	2695	MANI	49	GB	0913.5	0942.5	40.5	1100.0			QL=6 ST=2 TYP=6
	4995	MANI	49	GB	0913.5	0945.8	40.5	4100.0			QL=6 ST=2 TYP=6
	1415	MANI	47	GB	0916.0	0942.5	38.0	200.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0916.6	0917.8	20.4D	450.0			QL=4 ST=2 TYP=5
	8800	MANI	49	GB	0917.5	0946.3	36.5	6200.0			QL=6 ST=2 TYP=6
	650	GORK	23	GRF	0917.7		193.0D	13.0			
	9395	PEKG			0918.0	0921.0					
	9395	PEKG			0918.0	0941.0					
	9395	PEKG			0918.0	0945.8					
	9395	PEKG	47	GB	0918.0	0951.8	52.0	2929.0	1046.0		
	1415	LEAR	47	GB	0919.0	0921.6	18.0D	96.0			QL=4 ST=2 TYP=5
	245	LEAR	4	S/F	0920.5	0934.6	16.5D	47.0			QL=4 ST=2 TYP=3
	500	HIRA	45	C	0920.6	0920.7	1.5	80.0	20.0		WL
	410	LEAR	47	GB	0920.6	0926.3	16.4D	400.0			QL=4 ST=2 TYP=5
	3750	TYKW	29	PBI	0925.0		6.0D	175.0U	170.0D		
	9400	TYKW	29	PBI	0925.0		3.0	250.0U	250.0D		
	610	LEAR	47	GB	0926.3	0926.3	10.7D	340.0			QL=4 ST=2 TYP=5
	204	IZMI	25	R	0931.5	0943.7	148.6	230.0	160.0		
	200	GORK	4	S/F	0932.2	0944.9	12.7U	330.0			
	650	GORK	47	GB	0933.0	1029.8	170.0	490.0			
	650	GORK			0933.0	1115.0		260.0			
	650	GORK			0933.0	1221.7		470.0			
	610	MANI	47	GB	0935.1	0955.1	22.9	239.0			QL=6 ST=2 TYP=5
	500	HIRA	45	C	0940.0U	0946.0U	10.0D	200.0U	50.0U		WR,SUNSET
	200	HIRA	46	C	0943.2	0943.3	4.5	390.0U	86.0U		0,SUNSET
	410	SGMR	8	S	0944.8	0946.0		40.0			QL=6 ST=1 TYP=3
	610	SGMR	47	GB	0944.8	0946.1		66.0			QL=6 ST=1 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	245	SGMR	8	S	0944.8	0946.8		100.0			QL=6 ST=1 TYP=3
	100	HIRA	46	C	0946.3	0949.1	6.0	3900.0U	362.0U		WL,SUNSET
	100	GORK	47	GB	0948.0	0949.4	5.0	7000.0			
	200	GORK	27	RF	0948.0	1218.5	162.0D	280.0			
	610	SGMR	47	GB	0950.5	0950.6	12.6	119.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	0950.5	0950.8	12.6	68.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	0950.5	0951.6	12.6	81.0			QL=6 ST=2 TYP=3
	33	UPIC	49	GB	0950.6	0951.3	31.6				
	2695	SGMR	49	GB	0951.5	0952.5	11.6	430.0			QL=6 ST=2 TYP=6
	4995	SGMR	49	GB	0952.3	0952.3	10.8	189.0			QL=6 ST=2 TYP=6
	1415	SGMR	47	GB	0952.3	0952.5	10.8	21.0			QL=6 ST=2 TYP=5
	15400	SGMR	49	GB	0954.6	0956.1	8.5	820.0			QL=6 ST=2 TYP=6
	8800	SGMR	49	GB	0957.1	0959.3	6.0	480.0			QL=6 ST=2 TYP=6
	15000	KISV	29	PBI	0959.0	0959.0	200.0D	1030.0			
	245	SGMR	4	S/F	1003.1	1003.1	7.7	130.0			QL=6 ST=2 TYP=3
	4995	SGMR	49	GB	1003.1	1003.3	7.7	890.0			QL=6 ST=2 TYP=6
	15400	SGMR	49	GB	1003.1	1003.3	7.7	770.0			QL=6 ST=2 TYP=6
	410	SGMR	47	GB	1003.1	1003.3	7.7	100.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1003.1	1003.3	7.7	189.0			QL=6 ST=2 TYP=5
	2695	SGMR	49	GB	1003.1	1003.3	7.7	900.0			QL=6 ST=2 TYP=6
	1415	SGMR	49	GB	1003.1	1003.8	7.7	400.0			QL=6 ST=2 TYP=6
	8800	SGMR	49	GB	1003.1	1005.8	7.7	740.0			QL=6 ST=2 TYP=6
	100	GORK	27	RF	1008.0	1222.3	134.3	1300.0			
	4995	SGMR	49	GB	1010.8	1011.0	13.0	1000.0			QL=6 ST=2 TYP=6
	8800	SGMR	49	GB	1010.8	1013.1	13.0	790.0			QL=6 ST=2 TYP=6
	245	SGMR	4	S/F	1010.8	1013.3	13.0	169.0			QL=6 ST=2 TYP=3
	15400	SGMR	49	GB	1010.8	1013.5	13.0	640.0			QL=6 ST=2 TYP=6
	2695	SGMR	49	GB	1010.8	1013.8	13.0	1199.0			QL=6 ST=2 TYP=6
	410	SGMR	47	GB	1010.8	1014.6	13.0	96.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1010.8	1015.0	13.0	219.0			QL=6 ST=2 TYP=5
	1415	SGMR	49	GB	1010.8	1015.1	13.0	890.0			QL=6 ST=2 TYP=6
	6100	KISV	29	PBI	1013.0	1013.0	110.0	490.0			
	33	UPIC	29	PBI	1022.2		245.0				
	4995	SGMR	47	GB	1023.8	1023.8	10.0	430.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1023.8	1023.8	10.0	100.0			QL=6 ST=2 TYP=5
	15400	SGMR	49	GB	1023.8	1023.8	10.0	440.0			QL=6 ST=2 TYP=6
	2695	SGMR	47	GB	1023.8	1023.8	10.0	480.0			QL=6 ST=2 TYP=5
	8800	SGMR	49	GB	1023.8	1023.8	10.0	510.0			QL=6 ST=2 TYP=6
	610	SGMR	49	GB	1023.8	1024.3	10.0	280.0			QL=6 ST=2 TYP=6
	1415	SGMR	47	GB	1023.8	1024.3	10.0	480.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1033.8	1034.1	8.2	300.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1033.8	1034.3	8.2	280.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1033.8	1034.3	8.2	260.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1033.8	1034.3	8.2	290.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1033.8	1034.3	8.2	260.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1033.8	1034.6	8.2	410.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1033.8	1034.6	8.2	100.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1042.0	1042.1	8.5	78.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1042.0	1042.1	8.5	169.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1042.0	1042.1	8.5	189.0			QL=6 ST=2 TYP=3
	4995	SGMR	47	GB	1042.0	1042.1	8.5	210.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1042.0	1042.1	8.5	169.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1042.0	1042.1	8.5	330.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1042.0	1042.1	8.5	230.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1042.0	1042.1	8.5	160.0			QL=6 ST=2 TYP=5
	3100	CRIM	29	PBI	1048.0	1048.0		136.0			
	1415	SGMR	47	GB	1050.5	1050.6	8.1	110.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1050.5	1050.6	8.1	180.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1050.5	1050.6	8.1	139.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1050.5	1050.8	8.1	71.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1050.5	1051.0	8.1	139.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1050.5	1051.0	8.1	280.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1050.5	1051.1	8.1	400.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1050.5	1051.3	8.1	380.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1058.6	1058.8	8.5	71.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1058.6	1058.8	8.5	110.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1058.6	1059.0	8.5	270.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1058.6	1059.0	8.5	400.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1058.6	1059.0	8.5	139.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1058.6	1059.0	8.5	180.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	610	SGMR	47	GB	1058.6	1059.0	8.5	119.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1058.6	1059.1	8.5	380.0			QL=6 ST=2 TYP=5
	2800	OTTA	26A	FAL	1100.0E	1750.0	410.0D	-154.0			
	950	GORK	40	F	1105.0E		91.0D				
	1415	SGMR	47	GB	1107.1	1107.1	7.5	119.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1107.1	1107.1	7.5	290.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1107.1	1107.3	7.5	180.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1107.1	1107.3	7.5	340.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1107.1	1107.3	7.5	320.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1107.1	1107.3	7.5	91.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1107.1	1107.3	7.5	300.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1107.1	1107.3	7.5	139.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1114.6	1114.8	9.5	189.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1114.6	1115.1	9.5	139.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1114.6	1115.1	9.5	460.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1114.6	1115.1	9.5	139.0			QL=6 ST=2 TYP=3
	1415	SGMR	47	GB	1114.6	1115.3	9.5	320.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1114.6	1115.3	9.5	310.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1114.6	1115.5	9.5	300.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1114.6	1115.8	9.5	280.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1128.1	1128.3	13.7	260.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1128.1	1128.5	13.7	160.0			QL=6 ST=2 TYP=3
	4995	SGMR	47	GB	1128.1	1128.6	13.7	230.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1128.1	1128.8	13.7	260.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1128.1	1129.8	2.5	26.0			QL=6 ST=2 TYP=3
	610	SGMR	47	GB	1128.1	1130.1	13.7	110.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1128.1	1130.1	13.7	139.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1128.1	1130.1	13.7	180.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1141.8	1142.0	13.5	160.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1141.8	1142.0	13.5	200.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1141.8	1142.0	13.5	200.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1141.8	1142.3	13.5	200.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1141.8	1143.6	13.5	180.0			QL=6 ST=2 TYP=3
	610	SGMR	47	GB	1141.8	1145.0	13.5	160.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1141.8	1146.0	13.5	100.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1142.5	1142.6	2.3	30.0			QL=6 ST=2 TYP=3
	15400	SGMR	47	GB	1155.3	1155.3	11.3	139.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1155.3	1155.5	11.3	139.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1155.3	1155.8	11.3	80.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1155.3	1156.0	11.3	169.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1155.3	1156.3	11.3	160.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1155.3	1156.3	11.3	130.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1155.3	1156.6	11.3	83.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1201.8	1202.1	.3D	23.0			QL=6 ST=2 TYP=3
	610	SGMR	47	GB	1206.6	1206.8	11.7	86.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1206.6	1206.8	11.7	73.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1206.6	1207.1	11.7	100.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1206.6	1207.1	11.7	139.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1206.6	1207.3	11.7	139.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1206.6	1208.8	11.7	100.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1206.6	1208.8	11.7	139.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	1209.4	1209.9	1.3	900.0	25.0		
	410	SGMR	47	GB	1209.6	1209.8	.7	280.0			QL=6 ST=2 TYP=5
	9400	HUAN	30	PBI	1210.9	1210.9	167.4	141.1	43.1		0
	4995	SGMR	47	GB	1218.3	1218.5	9.8	110.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1218.3	1218.6	9.8	169.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1218.3	1218.8	9.8	70.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1218.3	1219.1	9.8	70.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1218.3	1219.1	9.8	68.0			QL=6 ST=2 TYP=5
	610	SGMR	49	GB	1218.3	1220.3	9.8	94.0			QL=6 ST=2 TYP=6
	2695	SGMR	47	GB	1218.3	1220.3	9.8	139.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1220.8	1221.0	7.3	88.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1228.1	1228.3	10.5	119.0			QL=6 ST=2 TYP=5
	15400	SGMR	20	GRF	1228.1	1228.3	5.5	41.0			QL=6 ST=2 TYP=2
	4995	SGMR	47	GB	1228.1	1228.3	10.5	100.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1228.1	1228.5	10.5	76.0			QL=6 ST=2 TYP=5
	8800	SGMR	20	GRF	1228.1	1228.5	10.5	40.0			QL=6 ST=2 TYP=2
	245	SGMR	4	S/F	1228.1	1228.8	10.5	169.0			QL=6 ST=2 TYP=3
	610	SGMR	47	GB	1228.1	1229.3	10.5	110.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1253.6	1253.6	5.7	100.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	610	SGMR	20	GRF	1253.6	1253.8	5.7	44.0			QL=6 ST=2 TYP=2
	4995	SGMR	20	GRF	1253.6	1253.8	5.7	59.0			QL=6 ST=2 TYP=2
	1415	SGMR	47	GB	1253.6	1253.8	5.7	61.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1253.6	1253.8	5.7	96.0			QL=6 ST=2 TYP=3
	2800	OTTA	1	S	1326.0	1326.8	2.0	4.2	1.4		
	2695	ATHN	20	GRF	1328.6	1338.3	25.7	7.0			QL=6 ST=3 TYP=2
	1415	ATHN	20	GRF	1329.3	1339.1	25.3	79.0			QL=6 ST=3 TYP=2
	2695	ATHN	20	GRF	1329.3	1339.1	25.3	7.0			QL=6 ST=2 TYP=2
	4995	ATHN	20	GRF	1329.8	1338.3	24.8	5.0			QL=6 ST=3 TYP=2
	8800	ATHN	20	GRF	1330.3	1344.6	24.5	18.0			QL=6 ST=3 TYP=2
	1415	SGMR	47	GB	1331.8	1332.8	2.8	57.0			QL=6 ST=2 TYP=5
	610	SGMR	8	S	1332.3	1332.5	1.3	46.0			QL=6 ST=2 TYP=3
	1415	SGMR	47	GB	1338.8	1339.1	.5	80.0			QL=6 ST=2 TYP=5
	9400	HUAN	1	S	1345.5	1348.4	6.5	10.6	4.8		0
	9400	HUAN	2	S/F	1357.4	1359.6	5.2	5.3	3.7		0
	9400	HUAN	2	S/F	1417.7	1418.8	4.1	6.2	2.6		0
	930	BORD	41	F	1512.1	1513.5	1.4U	40.0	2.0		
	9400	HUAN	3	S	1530.6	1531.2	2.0	128.8	32.6		R
	8800	ATHN	47	GB	1530.6	1531.5	3.0	95.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	1530.8	1531.3	2.7	11.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1530.8	1531.5	2.7	10.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1530.8	1531.5	4.0	24.0			QL=6 ST=2 TYP=3
	2800	OTTA	3	S	1531.0	1531.1	1.0	16.2	5.4		
	11800	BERN	4	S/F	1531.0	1531.3	1.0	156.0			
	19600	BERN	4	S/F	1531.0	1531.3	1.0	75.0			
	8800	SGMR	47	GB	1531.0	1531.3	.8	110.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1531.0	1531.3	1.1	189.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	1531.0	1531.3	.3	36.0			QL=6 ST=2 TYP=3
	8400	BERN	4	S/F	1531.0	1531.3	1.0	104.0			
	2695	SGMR	8	S	1532.3	1533.1	1.0	27.0			QL=6 ST=2 TYP=3
	2695	ATHN	20	GRF	1538.1	1549.5	22.2	10.0			QL=6 ST=2 TYP=2
	4995	ATHN	20	GRF	1538.1	1549.5	22.2	24.0			QL=6 ST=2 TYP=2
	8800	ATHN	20	GRF	1538.1	1549.5	22.0	32.0			QL=6 ST=2 TYP=2
	2695	SGMR	8	S	1548.6	1549.1	.5	28.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1549.1	1549.3	.5	20.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1549.1	1549.3	.5	29.0			QL=6 ST=2 TYP=3
	9400	HUAN	3	S	1549.1	1549.7	3.0	22.9	8.1		0
	9400	HUAN	4	S/F	1559.5	1600.7	2.7	21.2	3.8		0
	9400	HUAN	2	S/F	1606.2	1609.0	3.4	10.6	6.4		0
	9400	HUAN	3	S	1628.5	1629.1	1.5	44.1	24.7		R
	4995	ATHN	4	S/F	1628.5	1629.1	3.1	29.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1628.6	1628.8	1.0	62.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	1628.6	1628.8	.7	39.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1628.6	1628.8	.5	26.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1628.6	1629.1	2.0	46.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	1630.0	1630.0	18.0	12.3	8.2		R
	2800	OTTA	20	GRF	1803.0	1810.0	20.0	4.4	2.2		
	9400	HUAN	3	S	1808.6	1809.4	2.8	79.4	24.4		R
	4995	SGMR	4	S/F	1808.8	1809.3	2.8	32.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1808.8	1809.3	2.2	28.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	1808.8	1809.3	7.5	92.0			QL=6 ST=2 TYP=5
	15400	PALE	8	S	1809.1	1809.3	1.5	38.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1809.1	1809.3	5.2	37.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1809.1	1809.3	3.2	60.0			QL=6 ST=2 TYP=5
	2695	SGMR	4	S/F	1809.1	1809.8	5.2	41.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1810.1	1810.5	.4D	11.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	1811.4	1811.4	11.6	14.1	5.1		0
	245	PALE	47	GB	1829.6	1831.1	2.5	69.0			QL=6 ST=2 TYP=5
	9400	HUAN	1	S	1847.1	1851.2	6.4	10.6	5.3		0
	2800	OTTA	23	GRF	1855.0	2055.0	235.0	19.0	9.0		
	9400	HUAN	4	S/F	1904.6	1908.4	6.4	132.3	26.1		0
	2800	OTTA	40	F	1905.7	1906.7	4.0	188.0			
	8800	SGMR	47	GB	1906.3	1908.1	2.5	100.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1906.5	1908.1	2.1	200.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1906.6	1907.0	1.5	130.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1906.6	1908.1	3.5	180.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	1906.6	1908.1	3.5	210.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1906.6	1908.6	2.0	200.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	1906.8	1907.0	2.5	189.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1906.8	1908.1	1.8	139.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	4995	PALE	47	GB	1906.8	1908.1	2.7	169.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1907.8	1908.6	5.3	119.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	1907.8	1908.6	1.8	320.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	1908.0	1908.6	1.3	180.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	1908.1	1908.3	1.0	13999.0			QL=6 ST=2 TYP=6
	245	PALE	49	GB	1908.1	1908.3	2.0	13000.0			QL=6 ST=2 TYP=6
	410	PALE	47	GB	1908.3	1908.6	1.3	81.0			QL=6 ST=2 TYP=5
	9400	HUAN	20	GRF	1914.5	1919.7	12.1	7.0	5.5		0
	610	PALE	4	S/F	1919.6	1920.8	7.2	42.0			QL=5 ST=2 TYP=3
	200	HIRA	24	R	1925.0E	2024.0	865.0D	90.0	35.0		ML
	610	PALE	49	GB	2014.1	2019.6	41.4	710.0			QL=6 ST=2 TYP=6
	9400	HUAN	23	GRF	2020.5	2051.5	58.5	49.4	21.9		0
	500	HIRA	45	C	2021.7	2024.5	6.0	30.0	20.0		SL
	8800	PALE	49	GB	2029.3	2041.6	26.2	840.0			QL=6 ST=3 TYP=6
	15400	PALE	49	GB	2029.5	2030.8	26.0	1199.0			QL=6 ST=3 TYP=6
	2800	OTTA	1	S	2034.5	2035.5	2.5	5.6	2.6		
	4995	PALE	47	GB	2034.6	2035.5	20.9	34.0			QL=6 ST=2 TYP=5
	9400	HUAN	45	C	2040.3	2043.0U	5.8	208.2	116.2		R
	2800	OTTA	3	S	2040.5	2042.0	9.0	27.0	11.2		
	500	HIRA	45	C	2040.7	2041.9	6.0	20.0	10.0		SL
	2695	PALE	4	S/F	2041.1	2042.3	3.2	28.0			QL=6 ST=2 TYP=3
	500	HIRA	45	C	2048.0	2049.5	4.0	16.0	10.0		SL
	2800	OTTA	40	F	2051.0	2053.0	3.0	10.7			
	4995	SGMR	4	S/F	2051.8	2053.1	2.5	34.0			QL=6 ST=2 TYP=3
	610	SGMR	49	GB	2051.8	2055.0	18.8	340.0			QL=6 ST=2 TYP=6
	200	HIRA	45	C	2052.7	2053.1	1.4	13000.0	1510.0		0
	245	SGMR	49	GB	2053.0	2053.1	.8	3199.0			QL=6 ST=2 TYP=6
	1415	SGMR	8	S	2053.0	2053.1	.1	19.0			QL=6 ST=2 TYP=3
	245	PALE	49	GB	2053.1	2053.3	2.4	3100.0			QL=6 ST=2 TYP=6
	410	PALE	47	GB	2053.1	2053.3	2.4	180.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	2053.1	2053.3	.4	100.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	2053.3	2053.6	1.3	11.0			QL=6 ST=2 TYP=3
	500	HIRA	46	C	2054.0	2057.7	20.0	65.0	40.0		SL
	4995	PALE	20	GRF	2055.5	2055.6	12.3	28.0			QL=6 ST=2 TYP=2
	15400	PALE	4	S/F	2055.5	2056.8	15.1	40.0			QL=6 ST=2 TYP=3
	610	PALE	49	GB	2055.5	2057.5	18.8	700.0			QL=6 ST=2 TYP=6
	8800	PALE	4	S/F	2055.8	2057.6	9.3	34.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	2059.0E	2059.0U	105.0D	22.0D	11.0D		
	2000	TYKW	21	GRF	2100.0E	2100.0U	110.0D	6.0D	3.0D		
	9400	TYKW	21	GRF	2100.0E	2100.0U	105.0D	30.0D	13.0D		RAIN
	610	SGMR	47	GB	2110.6	2110.8	59.5	470.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	2114.3	2114.3	16.5	260.0			QL=6 ST=2 TYP=5
	15400	PALE	8	S	2114.5	2115.0	1.8	26.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	2130.8	2131.0	19.0	110.0			QL=6 ST=2 TYP=5
	2930	VORO	3	S	2140.0	2148.0	8.0	120.0			
	610	PALE	47	GB	2149.8	2151.1	23.3	119.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	2225.0	2225.5	4.0	27.0	10.0		
	2000	TYKW	5	S	2229.0	2229.8	2.0	6.0	1.5		
	1000	TYKW	8	S	2230.3	2230.4	.2	12.0	3.0		
	1000	TYKW	45	C	2235.0	2238.3	34.0	10.0	3.0		
	610	SGMR	47	GB	2236.5	2241.0	28.0	119.0			QL=6 ST=3 TYP=5
	15400	SGMR	8	S	2239.0	2239.3	.5	49.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	2243.0	2243.8	32.8	189.0			QL=6 ST=2 TYP=5
	9400	TYKW	21	GRF	2300.0U	2320.0U	60.0U	10.0U	5.0U		RAIN
	610	SGMR	47	GB	2304.5	2305.8	14.8	74.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	2306.0U	2308.0	4.0U	8.0U	2.0U		
	3750	TYKW	21	GRF	2310.0	2320.0	50.0	8.0	4.0		
	2695	PENT	22	GRF	2310.0	2320.0	130.0	10.0	5.0		
	2000	TYKW	21	GRF	2311.0	2321.0	50.0	5.0	2.0		
	3750	TYKW	5	S	2344.0U	2345.8	4.0U	7.0U	2.5U		INTERFERENCE
	9400	TYKW	5	S	2345.0	2345.9	6.0U	15.0U	4.0U		
	2000	TYKW	45	C	2350.5	2351.4	5.0	6.0	1.0		
13	245	LEAR	43	NS	0000.3	0649.6	575.7	620.0			QL=6 ST=2 TYP=1
	200	GORK	44	NS	0258.0E		375.0D		5.0		
	100	GORK	44	NS	0300.0E		583.0D		15.0		
	610	LEAR	43	NS	0355.1	0714.1	340.9	100.0			QL=6 ST=2 TYP=1
	33	UPIC	43	NS	0534.0		715.1				
	29	UPIC	43	NS	0534.2		714.6				
	260	ONDR	44	NS	0547.0E		513.0D				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
13	536	ONDR	44	NS	0547.0E	1218.0U	513.0D	234.0U			
	127	TORN	44	NS	0600.0E		580.0D		13.0		V1,DISTURBED
	410	SGMR	43	NS	0941.0	1105.1	855.0D	53.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0941.0	2118.1	855.0D	239.0			QL=6 ST=2 TYP=1
	610	SGMR	43	NS	1725.8	1726.1		130.0			QL=6 ST=3 TYP=1
	100	HIRA	44	NS	1928.0E	0912.0	865.0D	440.0	50.0		SL
	208	WORO	44	NS	2100.0E		360.0D		45.0		
	245	LEAR	43	NS	2321.0	0221.6	617.0D	100.0			QL=6 ST=2 TYP=1
	610	LEAR	47	GB	0000.6	0000.6	.2	250.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0000.6	0000.6	.2	110.0			QL=6 ST=2 TYP=5
	9400	TYKW	21	GRF	0018.0	0031.0	60.0	10.0	4.0		
	9400	TYKW	21	GRF	0025.0	0026.5	45.0	6.0	3.0		
	9400	TYKW	5	S	0030.0	0030.7	1.0	13.0	4.0		
	9400	TYKW	29	PBI	0031.0		7.0	3.0	1.5		
	9400	TYKW	5	S	0102.0	0105.0	10.0	2.0	1.0		
	245	LEAR	47	GB	0115.1	0115.1	.2	280.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0115.1	0115.3	.2	38.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0125.0	0133.0	20.0	2.0	1.0		
	2000	TYKW	20	GRF	0126.0	0129.0	30.0	2.0	1.0		
	500	HIRA	20	GRF	0150.6	0159.3	26.0	10.0	4.0		SL
	9400	TYKW	28	PRE	0205.0	0227.0	22.0	5.0	2.5		
	2000	TYKW	28	PRE	0210.0	0226.0	16.0	3.5	1.5		
	2000	TYKW	45	C	0226.0	0229.3	13.0	39.0	15.0		
	2000	TYKW	45	C	0227.0	0229.2	8.0	117.0	5.0		
	9400	TYKW	45	C	0227.0	0229.4	10.0	24.0	8.0		
	245	LEAR	47	GB	0227.1	0228.3	9.2	130.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	0227.8	0227.8	12.0	54.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0227.8	0229.1	2.7	29.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0227.8	0229.3	8.5	46.0			QL=6 ST=2 TYP=3
	200	HIRA	41	F	0227.8	0233.1	6.3	48.0			WL
	245	PALE	47	GB	0228.1	0228.3	1.4	139.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0228.1	0233.5	5.7	10.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0229.0	0229.1	1.1	20.0			QL=6 ST=2 TYP=3
	2000	TYKW	29	PBI	0235.0		10.0	1.0	.5		
	9400	TYKW	30	PBI	0237.0		50.0	5.0	2.5		
	2000	TYKW	30	PBI	0239.0		33.0	9.0	4.0		
	9400	TYKW	45	C	0259.5	0301.6	10.5	23.0	6.0D		
	8800	LEAR	4	S/F	0259.8	0301.3	4.5	21.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	0300.0	0300.5	10.0	22.0	5.0D		
	650	GORK	23	GRF	0300.0E	0537.0	570.0D	100.0			
	500	HIRA	7	C	0300.0	0300.1	1.0	45.0	25.0		SL
	610	LEAR	47	GB	0300.1	0300.3	1.0	90.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0300.1	0300.3	4.0	11.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0300.1	0300.5	1.0	32.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	0300.3	0300.3	1.5	70.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	0303.0E	0303.0U	8.0D	7.0D	4.0D		
	2000	TYKW	45	C	0303.0E	0303.6	7.0D	8.0	1.0D		
	610	LEAR	47	GB	0309.1	0318.1	46.0	290.0			QL=6 ST=2 TYP=5
	650	GORK	46	C	0309.7	0318.1	18.2	160.0			
	650	GORK			0309.7	0319.5		160.0			
	9400	TYKW	29	PBI	0310.0		10.0	3.0	1.5		
	2000	TYKW	45	C	0310.0	0313.2	25.0	9.0	2.0		
	500	HIRA	48	C	0310.2	0702.0	400.0	300.0	200.0		SL
	610	PALE	47	GB	0310.3	0319.6	21.3	280.0			QL=6 ST=2 TYP=5
	3750	TYKW	29	PBI	0311.0		12.0	2.0	1.0		
	2000	TYKW	31	ABS	0312.0	0330.0	47.0	-2.0	-1.0		
	17000	NOBE	7	C	0317.6	0319.0	20.0	26.0			R
	15400	PALE	8	S	0318.8	0319.0	1.3	27.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0331.6	0333.1	3.0	30.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	0331.6	0334.3	73.4	139.0			QL=6 ST=2 TYP=5
	2950	GORK	21	GRF	0332.7	0558.4	510.0D	17.0			
	3750	TYKW	21	GRF	0359.0	0440.0	310.0	8.0	4.0		
	9400	TYKW	21	GRF	0400.0	0650.0	325.0D	35.0	17.0D		RAIN
	2000	TYKW	21	GRF	0410.0	0440.0	290.0	3.0	1.5		
	15000	KISV	1	S	0435.2	0436.4	1.5	18.0			
	17000	NOBE	1	S	0435.5	0436.2	1.5	18.0			R
	6100	KISV	40	F	0505.8	0508.9	7.0	9.0			
	9400	TYKW	5	S	0532.0U	0532.5	1.5U	11.0	3.0U		
	3750	TYKW	5	S	0532.0	0532.5U	8.0	4.0	1.5		
	8800	LEAR	8	S	0532.1	0532.3	1.2	20.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
13	9100	GORK	22	GRF	0532.2	0532.5	26.9	19.0			
	6100	KISV	1	S	0532.3	0532.5	.5	11.0			
	8800	ATHN	8	S	0532.3	0532.6	.5	9.0			QL=6 ST=3 TYP=3
	4995	ATHN	8	S	0532.3	0532.6	.5	10.0			QL=6 ST=3 TYP=3
	3750	TYKW	5	S	0544.0	0549.0	25.0	11.0	4.0		
	3750	TYKW	21	GRF	0544.0	0700.0	195.0	17.0	9.0		
	2000	TYKW	21	GRF	0545.0	0620.0	190.0	6.0	3.0		
	2000	TYKW	45	C	0547.0	0549.0	6.0	3.0	1.0		
	6100	KISV	20	GRF	0548.0	0647.0	130.0	17.0			
	2000	TYKW	5	S	0607.0	0607.6	2.0	2.0	.7		
	9100	GORK	21	GRF	0615.0	0730.0	156.0	30.0			
	17000	NOBE	21	GRF	0631.5	0648.3	90.0D	18.0			R
	9500	POTS	1	S	0637.6	0638.0	1.3	9.3			
	15000	KISV	3	S	0637.7	0638.2	3.0	61.0			
	17000	NOBE	1	S	0638.1	0638.3	.8	40.0			R
	3000	POTS	4	S/F	0639.9	0640.1	1.8	125.0			
	2000	TYKW	20	GRF	0648.0	0725.0	120.0	6.0	3.0		
	234	POTS	4	S/F	0649.7	0649.7	.3	275.0	15.0		III
	9400	TYKW	5	S	0658.0	0658.8	3.0	8.0	2.5		
	650	GORK	46	C	0703.6	0711.0	21.4	93.0			
	650	GORK			0703.6	0714.2		88.0			
	650	GORK			0703.6	0718.0		90.0			
	930	BORD	8	S	0706.4	0706.6	.2	88.0	2.0		
	9400	TYKW	28	PRE	0715.0	0717.0	7.0	6.0	4.0		RAIN
	9500	POTS	21	GRF	0715.0	0728.5	45.0	27.0			
	6100	KISV	1	S	0720.0	0721.1	2.5	5.0			
	9395	PEKG	20	GRF	0720.0	0728.5	28.0	20.0	6.4		
	9400	TYKW	5	S	0722.0	0728.3	13.0	32.0	13.0		
	15000	KISV	40	F	0725.8	0728.5	6.0	42.0			
	9100	GORK	1	S	0727.2	0728.4	2.5	14.0	7.0		
	15400	LEAR	8	S	0728.5	0728.6		4.0			QL=6 ST=1 TYP=3
	9400	TYKW	29	PBI	0735.0		25.0	10.0	5.0		
	930	BORD	8	S	0758.2	0758.3	.2	19.0	1.0		
	9500	POTS	22	GRF	0813.5	0819.0	42.0	13.0			
	9400	TYKW	5	S	0818.0	0818.7	4.0	17.0	7.0		
	9100	GORK	1	S	0818.0	0818.9	2.3	17.0	8.0		
	15000	KISV	1	S	0818.2	0819.0	3.5	22.0			
	15400	LEAR	8	S	0818.3	0819.0	1.2	10.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0818.6	0819.1	1.4	13.0			QL=6 ST=2 TYP=3
	234	POTS	45	C	0819.0	1221.0	350.0	500.0	30.0		
	3750	TYKW	5	S	0823.0	0830.0	15.0	6.0	3.0		INTERFERENCE
	2950	GORK	1	S	0823.7	0824.4	1.3	4.0			
	9400	TYKW	5	S	0824.0U	0830.0U	15.0U	12.0U	6.0U		
	6100	KISV	20	GRF	0824.0	0830.0	15.0	6.0			
	204	IZMI	25	R	0900.0	1105.2	180.0	1000.0	40.0		
	100	HIRA	42	SER	0908.4	0915.0	7.3	3800.0			ML
	930	BORD	40	F	0910.0	1012.0	281.0	312.0	40.0		
	808	ONDR	47	GB	0910.5	1011.0U	225.0U	374.0U			
	950	GORK	40	F	0910.7	1006.7	188.0D	108.0			
	950	GORK			0910.7	1105.6		73.0			
	950	GORK			0910.7	1132.7		78.0			
	3100	CRIM	1	S	0914.5	0915.2	2.0	20.0	7.0		
	2000	TYKW	45	C	0914.5	0915.5	1.5	23.0	7.0		
	9100	GORK	1	S	0914.7	0915.2	1.9	28.0	14.0		
	113	POTS	4	S/F	0914.8	0915.1	.7	1400.0	250.0		III
	6100	KISV	4	S/F	0914.8	0915.3	1.5	25.0			
	2950	GORK	1	S	0914.8	0915.3	3.0	17.5			
	650	GORK	46	C	0915.0	0915.2	2.7	78.0			
	9500	POTS	3	S	0915.0	0915.3	3.0	20.0			
	15000	KISV	2	S/F	0915.0	0915.3	1.0	14.0			
	2695	LEAR	8	S	0915.0	0915.3	.5	18.0			QL=5 ST=2 TYP=3
	1415	LEAR	8	S	0915.0	0915.3	.5	20.0			QL=5 ST=2 TYP=3
	8800	LEAR	8	S	0915.0	0915.3	.5	30.0			QL=5 ST=2 TYP=3
	2840	PEKG	3	S	0915.0	0915.3	2.0	16.7	8.2		
	4995	LEAR	8	S	0915.0	0915.3	.5	30.0			QL=5 ST=2 TYP=3
	9395	PEKG	3	S	0915.0	0915.3	1.0	33.5	12.1		
	1470	POTS	3	S	0915.0	0915.4	2.5	17.0			
	3000	POTS	3	S	0915.0	0915.4	2.5	23.0			
	650	GORK			0915.0	0916.4		42.0			
	4995	LEAR	8	S	0915.1	0915.1	.2	26.0			QL=5 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
13	234	POTS	4	S/F	0915.1	0915.4	.4	500.0	35.0		III
	610	LEAR	47	GB	0915.1	0915.8	1.7	110.0			QL=5 ST=2 TYP=5
	245	LEAR	47	GB	0915.3	0915.3	.2	360.0			QL=5 ST=2 TYP=5
	9500	POTS	22	GRF	0930.0	0948.0	60.0	27.0			
	9100	GORK	2	S/F	0930.2	0930.9	4.2	13.0	6.0		
	15000	KISV	2	S/F	0930.6	0930.8	1.0	19.0			
	9100	GORK	21	GRF	0945.0	0956.8	43.7	26.0			
	6100	KISV	20	GRF	0945.0	0957.0	40.0	23.0			
	3000	POTS	22	GRF	0946.0	0957.5	24.0	24.0			
	2950	GORK	1	S	0947.5	0948.5	2.7	6.7			
	9100	GORK	1	S	0947.6	0948.2	1.7	17.0	8.0		
	1470	POTS	20	GRF	0953.0	0957.0	7.0	8.0			
	2950	GORK	1	S	0955.4	0957.0	3.6	12.0			
	610	SGMR	49	GB	1003.1	1010.3	27.9	1500.0			QL=4 ST=3 TYP=6
	650	GORK	47	GB	1004.7U	1011.1	147.0D	1300.0			
	650	GORK			1004.7U	1202.0		890.0			
	15000	KISV	1	S	1053.5	1054.0	1.0	17.0			
	100	GORK	8	S	1105.0	1105.3	.6	1100.0D			
	200	GORK	46	C	1105.0	1105.5	16.5	100.0D			
	200	GORK			1105.0	1110.8		100.0D			
	245	SGMR	49	GB	1105.1	1105.3	11.5	1199.0			QL=6 ST=2 TYP=6
	410	SGMR	47	GB	1105.1	1105.3	.5	71.0			QL=6 ST=2 TYP=5
	113	POTS	4	S/F	1105.1	1105.4	.7	3200.0	500.0		III
	234	POTS	4	S/F	1105.2	1105.6	.4	1500.0	200.0		III
	1470	POTS	8	S	1105.3	1105.7	.9	20.0			
	610	SGMR	47	GB	1105.3	1105.8	13.0	189.0			QL=6 ST=2 TYP=5
	2650	DWIN	1	S	1106.0	1106.0	1.0	70.0	10.0		
	9100	GORK	22	GRF	1114.6	1116.3	12.2	35.0			
	4995	ATHN	4	S/F	1114.8	1115.6	7.2	11.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1114.8	1116.5	7.2	32.0			QL=6 ST=2 TYP=3
	15000	KISV	2	S/F	1115.0	1116.4	3.0	39.0			
	9500	POTS	29	PBI	1115.0	1116.5	30.0	29.0			
	8800	SGMR	8	S	1115.3	1115.8	1.3	30.0			QL=6 ST=2 TYP=3
	4993	SGMR	8	S	1115.5	1115.6	.1	18.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1116.1	1116.1	.2	29.0			QL=6 ST=2 TYP=3
	200	GORK	27	RF	1137.0	1226.5	56.0	75.0			
	410	SGMR	4	S/F	1137.6	1145.3	37.7	55.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1137.8	1158.6	82.5	470.0			QL=6 ST=2 TYP=5
	610	SGMR	49	GB	1138.6	1157.1	84.5	1000.0			QL=5 ST=2 TYP=6
	15000	KISV	1	S	1200.0	1200.2	.4	23.0			
	2695	SGMR	8	S	1214.0	1214.3	.3D	37.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1223.5	1228.6	10.8	54.0			QL=6 ST=2 TYP=5
	9500	POTS	29	PBI	1224.0	1228.6	35.0	38.0			
	9400	HUAN	45	C	1224.6	1225.4	7.5	34.7	11.7		0
	9400	HUAN			1224.6	1228.3		38.5			
	9400	HUAN			1224.6	1229.9		40.4			
	4995	ATHN	4	S/F	1227.6	1228.6	4.0	20.0			QL=6 ST=2 TYP=3
	6100	KISV	2	S/F	1228.0	1228.7	2.0	21.0			
	9400	HUAN	29	PBI	1232.1	1232.1	21.3	11.6	3.8		0
	2800	OTTA	20	GRF	1315.0	1410.0	165.0	48.0	15.8		
	6100	KISV	1	S	1327.8	1328.1	1.0	8.0			
	3000	POTS	20	GRF	1348.0	1410.0	62.0D	43.0			
	2695	ATHN	20	GRF	1348.5	1409.6	33.5	41.0			QL=6 ST=2 TYP=2
	8800	ATHN	20	GRF	1349.1	1409.3	32.9	97.0			QL=6 ST=2 TYP=2
	1415	ATHN	20	GRF	1349.6	1403.3	32.4	21.0			QL=6 ST=2 TYP=2
	4995	ATHN	20	GRF	1350.6	1409.3	31.4	85.0			QL=6 ST=2 TYP=2
	9500	POTS	22	GRF	1353.0	1409.2	57.0D	91.0			
	9400	HUAN	21	GRF	1353.2	1419.2	121.0	63.6	27.2		R
	610	SGMR	8	S	1354.3	1354.6	.3	40.0			QL=6 ST=3 TYP=3
	4995	SGMR	47	GB	1355.1	1404.8	18.2	64.0			QL=6 ST=3 TYP=5
	8800	SGMR	47	GB	1358.1	1404.8	15.2	77.0			QL=6 ST=3 TYP=5
	2695	SGMR	20	GRF	1359.0	1402.8	14.3	46.0			QL=6 ST=3 TYP=2
	19600	BERN	21	GRF	1400.0U	1408.3	110.0U	45.0			
	8400	BERN	21	GRF	1400.0U	1409.1	110.0U	106.0			
	11800	BERN	21	GRF	1400.0U	1409.2	110.0U	106.0			
	1470	POTS	20	GRF	1400.0	1442.0	50.0D	6.0			
	15400	SGMR	47	GB	1402.6	1404.8	10.7	70.0			QL=6 ST=3 TYP=5
	9400	HUAN	45	C	1404.6	1406.2	11.5	59.7	43.6		R
	9400	HUAN			1404.6	1408.5		67.4			R
	9400	HUAN			1404.6	1410.0		66.4			R

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
13	410	SGMR	8	S	1405.8	1406.1	.3D	20.0			QL=6 ST=3 TYP=3
	15400	SGMR	20	GRF	1427.8	1428.0	5.8	37.0			QL=6 ST=2 TYP=2
	4995	SGMR	20	GRF	1427.8	1428.1	15.5	56.0			QL=6 ST=2 TYP=2
	8800	SGMR	47	GB	1427.8	1428.5	15.5	63.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1427.8	1429.5	15.5	63.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	1443.1	1443.1	.2	13.0			QL=6 ST=2 TYP=3
	4995	SGMR	20	GRF	1443.3	1444.6	20.2	46.0			QL=6 ST=2 TYP=2
	8800	SGMR	20	GRF	1443.3	1444.6	20.2	51.0			QL=6 ST=2 TYP=2
	2695	SGMR	47	GB	1443.3	1444.8	20.2	63.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	1446.5	1446.8	.3D	16.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1539.8	1540.6	2.8	47.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1540.1	1541.1	2.5	8.0			QL=6 ST=2 TYP=3
	9400	HUAN	3	S	1540.4	1541.6	4.1	44.3	18.9		R
	2800	OTTA	21	GRF	1605.0	1740.0	170.0	9.0	4.4		
	11800	BERN	3	S	1624.0	1624.5	2.0	77.0			
	8400	BERN	3	S	1624.0	1624.5	2.0	63.0			
	19600	BERN	3	S	1624.0	1624.5	2.0	45.0			
	8800	ATHN	47	GB	1624.1	1624.6	1.5	57.0			QL=6 ST=2 TYP=5
	4995	ATHN	8	S	1624.1	1624.6	1.5	45.0			QL=6 ST=2 TYP=3
	15400	SGMR	47	GB	1624.3	1624.5	.3	61.0			QL=6 ST=2 TYP=5
	9400	HUAN	3	S	1625.2	1625.6	1.3	67.4	32.7		0
	9400	HUAN	30	PBI	1626.5	1626.5	49.8	7.7	6.8		0
	2800	OTTA	3	S	1627.4	1627.5	3.0	28.8	7.2		
	2650	DWIN	1	S	1628.0	1628.0	1.0	32.0	15.0		
	9400	HUAN	4	S/F	1628.8	1633.8	5.9	17.3	9.0		0
	9400	HUAN	3	S	1701.9	1703.3	4.7	23.1	13.8		0
	610	SGMR	20	GRF	1705.6	1708.8	20.2	50.0			QL=6 ST=2 TYP=2
	9400	HUAN	1	S	1744.6	1745.7	5.8	5.8	3.6		0
	245	PALE	47	GB	1758.6	1759.8	16.0	219.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	1759.8	1800.1	6.5	87.0			QL=6 ST=2 TYP=5
	9400	HUAN	2	S/F	1831.4	1833.5	7.8	15.4	7.7		0
	200	HIRA	24	R	1928.0E	0317.0	865.0D	260.0	90.0		SR
	100	HIRA	42	SER	1953.7	2040.3	49.6	630.0			SL
	9400	HUAN	2	S/F	2035.2	2039.5	7.0	13.5	8.0		0
	9400	HUAN	29	PBI	2042.2	2042.2	17.6	3.8	2.7		0
	9400	HUAN	22	GRF	2118.3	2128.0	14.3	9.6	5.3		0
	2800	OTTA	23	GRF	2120.0	2155.0	140.0	12.4	6.2		
	2000	TYKW	21	GRF	2130.0	2158.0	150.0	10.0	4.0		
	3750	TYKW	21	GRF	2143.0	2200.0	120.0	13.0	4.0		
	9400	TYKW	21	GRF	2144.0	2159.0	120.0	19.0	7.0		
	9400	TYKW	5	S	2146.0	2147.5	4.0	10.0	3.0U		
	3750	TYKW	5	S	2146.0	2147.6	4.0	8.0	3.0		
	2800	OTTA	8	S	2228.0	2228.0	.1	10.8			
	2000	TYKW	20	GRF	2235.0	2244.0	70.0	6.0	3.0		
	3750	TYKW	20	GRF	2237.0	2253.0	40.0	6.0	3.0		
	9400	TYKW	20	GRF	2240.0	2246.0	30.0	9.0	4.0		
	9400	TYKW	45	C	2323.0	2336.0	13.0U	7.0	2.0		
	9400	TYKW	21	GRF	2350.0	2359.5	42.0	10.0	4.0		
14	100	GORK	44	NS	0300.0E		528.0D		20.0		
	200	GORK	44	NS	0302.0E		526.0D		10.0		
	29	UPIC	44	NS	0330.0E		900.0D				
	33	UPIC	44	NS	0330.0E		900.0D				
	610	LEAR	43	NS	0421.6	0431.6	316.4D	44.0			QL=6 ST=2 TYP=1
	127	TORN	43	NS	0742.0		538.0		14.0		V1,DISTURBED
	245	PALE	43	NS	1636.0	2331.8	718.0D	980.0			QL=6 ST=2 TYP=1
	100	HIRA	44	NS	1930.0E	2018.0	865.0D	800.0	190.0		SL
	200	HIRA	44	NS	1930.0E	2214.0	750.0D	85.0	19.0		ML
	245	SGMR	43	NS	1954.8	2058.8	241.2D	570.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2100.0E		360.0D		20.0		
	245	LEAR	43	NS	2321.0	0000.0	39.0D	670.0			QL=6 ST=2 TYP=1
	3750	TYKW	20	GRF	0006.0	0013.0	30.0	7.0	4.0		
	9400	TYKW	45	C	0008.5	0011.0	6.5	29.0	14.0		
	8800	LEAR	4	S/F	0009.1	0010.8	8.0	47.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0009.8	0010.8	7.5	23.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	0015.0		15.0	4.0	2.0		
	610	LEAR	4	S/F	0023.8	0028.6	10.5	36.0			QL=6 ST=2 TYP=3
	9400	TYKW	31	ABS	0032.0	0040.0	23.0	-3.0	-1.5		
	3750	TYKW	21	GRF	0050.0	0147.0	125.0	12.0	6.0		
	245	LEAR	47	GB	0050.8	0101.5	37.3	94.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	9400	TYKW	5	S	0055.0	0056.5	3.0	7.0	4.0		
	9400	TYKW	30	PBI	0058.0		10.0	3.0	1.5		
	8800	LEAR	4	S/F	0059.8	0100.8	23.3	30.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0100.0	0100.8	4.0	15.0	4.0		
	9400	TYKW	28	PRE	0111.5	0112.3	18.5	10.0	3.0		
	9400	TYKW	5	S	0115.6	0115.9	2.0	8.0	2.5		
	9400	TYKW	45	C	0119.8	0120.1	5.0	4.0	2.0		
	9400	TYKW	45	C	0130.0	0147.9	30.0	23.0	13.0		
	2000	TYKW	21	GRF	0130.0	0153.0	115.0	6.0	3.0		
	3750	TYKW	5	S	0134.0	0136.0	6.0	5.0	2.0		
	3750	TYKW	45	C	0151.0	0155.6	10.0	7.0	2.0		
	2000	TYKW	5	S	0154.0	0154.8	4.0	3.0	1.0		
	9400	TYKW	29	PBI	0200.0		90.0	11.0	5.0		
	2840	PEKG	2	S/F	0222.0	0224.0	4.0	5.8			
	9395	PEKG	3	S	0245.7	0246.1	1.0	24.9	9.2		
	3750	TYKW	5	S	0303.0E	0303.0U	20.0D	6.0D	3.0D		
	2950	GORK	23	GRF	0327.2E	0357.0	298.0D	14.0			
	650	GORK	21	GRF	0329.0	0630.0	385.0	8.0			
	3750	TYKW	21	GRF	0330.0	0400.0	135.0	6.0	3.0		
	2000	TYKW	21	GRF	0332.0	0359.0	130.0	4.0	2.0		
	2000	TYKW	45	C	0333.5	0336.0	6.0	7.0	2.5		
	2950	GORK	1	S	0333.8	0336.0	3.1	6.4			
	1000	TYKW	45	C	0334.0	0335.0	6.0	2.5	1.0		
	3750	TYKW	5	S	0334.0	0336.0	5.0	5.0	2.0		
	650	GORK	4	S/F	0334.0	0335.1	1.1U	11.0			
	500	HIRA	7	C	0334.1	0334.6	1.0	80.0	50.0		SL
	1000	TYKW	5	S	0343.8	0344.0	.5	7.0	2.5		
	650	GORK	27	RF	0345.0	0432.6	72.0	44.0			
	9400	TYKW	20	GRF	0347.0	0358.0	80.0	4.0	2.0		
	1000	TYKW	45	C	0347.4	0347.7	2.5	9.0	1.0		
	2000	TYKW	45	C	0348.0	0348.5	1.5	3.0	1.0		
	610	LEAR	8	S	0348.1E	0348.8	2.0D	13.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0445.5	0446.4	3.5	4.0	1.5		
	500	HIRA	42	SER	0504.3	0517.4	16.0	75000.0			SLSR
	9400	TYKW	45	C	0510.0	0510.8	9.0	6.0	3.0		
	9100	GORK	2	S/F	0510.3	0510.9	6.3	9.6			
	3750	TYKW	5	S	0519.0	0522.0	15.0	4.0	1.5		
	260	ONDR	44D		0533.0E	0732.0U	509.0D	71.0U			
	9400	TYKW	45	C	0545.8	0546.0	3.0	7.0	2.0		
	9100	GORK	1	S	0545.8	0546.1	1.2	14.0	7.0		
	2840	PEKG	20	GRF	0554.0	0641.7	119.0	37.4	12.2		
	9100	GORK	1	S	0556.9	0557.7	3.2	19.0	10.0		
	9400	TYKW	5	S	0557.0	0557.6	3.0	14.0	4.0		
	3750	TYKW	28	PRE	0622.0	0639.0	17.0	8.0	4.0		
	2000	TYKW	20	GRF	0623.0	0650.0	150.0	7.0	3.5		
	9395	PEKG	3	S	0627.0	0628.2	2.0	24.9	11.9		
	9400	TYKW	21	GRF	0630.0	0650.0	120.0D	20.0	12.0D		RAIN
	9395	PEKG	20	GRF	0630.0	0654.0	84.0	34.0	12.0		
	9100	GORK	21	GRF	0631.2	0651.8	91.0	28.0			
	6100	KISV	2	S/F	0637.7	0641.4	8.0	24.0			
	3750	TYKW	45	C	0639.0	0641.5	21.0	36.0	18.0		
	9400	TYKW	45	C	0641.0	0641.9	6.0	18.0	5.0		
	3000	POTS	23	GRF	0641.0	0641.6	39.0	15.0			
	15000	KISV	2	S/F	0641.0	0642.0	4.0	19.0			
	9500	POTS	23	GRF	0641.0	0654.0	69.0	23.0			
	9100	GORK	1	S	0641.2	0642.0	1.3	17.0	8.0		
	2695	ATHN	8	S	0641.3	0641.5	1.3	11.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0641.3	0641.5	.8	25.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0641.3	0641.5	5.8	33.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0641.3	0641.8	5.8	27.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0641.5	0641.6	1.6	11.0			QL=6 ST=2 TYP=3
	17000	NOBE	2	S/F	0641.7	0641.8	1.0	26.0			R
	15400	LEAR	4	S/F	0642.0	0642.1	5.1	11.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	0651.0	0654.0	7.0	16.0	4.0		
	6100	KISV	2	S/F	0651.0	0654.0	6.5	8.0			
	8800	LEAR	20	GRF	0653.3	0654.0	3.5	20.0			QL=6 ST=2 TYP=2
	9100	GORK	1	S	0653.3	0654.0	1.4	10.0	5.0		
	3750	TYKW	29	PBI	0700.0		100.0	16.0	8.0		
	500	HIRA	22	GRF	0720.4	0832.3	110.0	20.0	8.0		SR
	9100	GORK	1	S	0818.7	0819.7	3.7	8.5			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	650	GORK	4	S/F	0828.2	0831.6	7.8	13.5			
	2950	GORK	21	GRF	0859.6	1015.5	180.0D	23.0			
	1470	POTS	21	GRF	0933.0	0942.0	107.0	23.0			
	3000	POTS	21	GRF	0934.0	0945.0	116.0	50.0			
	3100	CRIM	3	S	0935.0	0944.7	15.0	44.0	5.0		
	2650	DWIN	2	S/F	0935.0	0945.0	20.0	50.0	25.0		
	3100	CRIM	21	GRF	0935.0	1014.0	109.0	24.0	8.0		
	9500	POTS	20	GRF	0935.0	1035.0	125.0	28.0			
	950	GORK	1	S	0935.3	0936.7	2.3	4.0			
	950	GORK	4	S/F	0940.1	0941.0	3.9	25.0			
	808	ONDR	4	S/F	0940.8	0941.1	3.7	28.0	18.0		
	650	GORK	4	S/F	0940.9	0942.2	2.3	64.0			
	2950	GORK	4	S/F	0941.0	0945.0	8.1	26.0			
	930	BORD	46	C	0942.0	0943.3	3.0	49.0	3.0		
	8400	BERN	41	F	0956.5	1042.3	90.0D	136.0			
	11800	BERN	41	F	0956.5	1042.3	90.0D	103.0			
	9100	GORK	21	GRF	0957.9	1045.2	93.0	49.0			
	15000	KISV	2	S/F	1003.2	1004.1	2.0	18.0			
	19600	BERN	41	F	1008.5	1042.4	60.0	30.0			
	3100	CRIM	3	S	1008.8	1010.0	5.0	44.0	15.0		
	6100	KISV	4	S/F	1008.9	1009.9	4.0	55.0			
	4995	ATHN	47	GB	1009.0	1009.6	6.3	65.0			QL=6 ST=3 TYP=5
	2695	ATHN	4	S/F	1009.0	1010.0	6.1	30.0			QL=6 ST=2 TYP=3
	2650	DWIN	1	S	1009.0	1010.0	5.0	30.0	15.0		
	2950	GORK	3	S	1009.0	1010.1	5.6	55.0			
	3000	POTS	3	S	1009.0	1010.3	5.0	55.0			
	9500	POTS	3	S	1009.0	1010.4	3.0	40.0			
	8800	ATHN	4	S/F	1009.1	1009.8	5.2	37.0			QL=6 ST=2 TYP=3
	9100	GORK	3	S	1009.3	1010.2	2.7	40.0			
	2950	GORK	2	S/F	1022.2	1023.7	3.7	8.3			
	4995	SGMR	47	GB	1031.6	1033.8	18.7	38.0			QL=6 ST=2 TYP=5
	2695	SGMR	4	S/F	1031.8	1033.6	12.3	37.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1032.3	1033.6	18.0	27.0			QL=6 ST=2 TYP=5
	15400	SGMR	4	S/F	1035.8	1039.6	8.7	30.0			QL=6 ST=2 TYP=3
	950	GORK	4	S/F	1040.4	1044.1	3.7U	29.0			
	15000	KISV	45	C	1041.2	1043.7	4.5	55.0			
	1470	POTS	4	S/F	1041.5	1042.4	7.5	32.0			
	1470	POTS			1041.5	1043.7		33.0			
	2695	ATHN	4	S/F	1041.6	1042.0	3.0	25.0			QL=6 ST=3 TYP=3
	4995	ATHN	47	GB	1041.6	1042.1	4.0	76.0			QL=6 ST=3 TYP=5
	8800	ATHN	47	GB	1041.6	1042.1	4.9	110.0			QL=6 ST=3 TYP=5
	1415	ATHN	4	S/F	1041.8	1042.1	3.2	54.0			QL=6 ST=3 TYP=3
	3100	CRIM	45	C	1042.0	1042.2	5.0	38.0	13.0		
	9500	POTS	4	S/F	1042.0	1042.3	6.5	111.0			
	3000	POTS	4	S/F	1042.0	1042.3	5.0	55.0			
	9100	GORK	45	C	1042.0	1042.3	3.2	115.0			
	6100	KISV	45	C	1042.0	1042.4	35.0	59.0			
	2950	GORK	45	C	1042.0	1042.5	2.6	32.0			
	9100	GORK			1042.0	1043.5		64.0			
	6100	KISV			1042.0	1043.7		41.0			
	3000	POTS			1042.0	1043.8		60.0			
	3100	CRIM			1042.0	1043.8		36.0			
	2950	GORK			1042.0	1043.9		28.0			
	2650	DWIN	2	S/F	1042.0	1044.0	3.0	40.0	20.0		
	1415	SGMR	47	GB	1042.1	1042.5	2.4	60.0			QL=6 ST=2 TYP=5
	536	ONDR	45	C	1042.3	1044.0	3.8	38.0			
	650	GORK	4	S/F	1042.4	1042.4	2.2	24.0			
	610	SGMR	8	S	1043.6	1043.8	.4	23.0			QL=6 ST=2 TYP=3
	930	BORD	46	C	1044.0	1044.6	4.0	43.0	4.0		
	2950	GORK	2	S/F	1051.7	1053.7	5.8	11.0			
	2800	OTTA	20	GRF	1145.0	1150.0	65.0	16.0	6.0		
	2950	GORK	1	S	1146.0	1146.1	.7	11.0			
	2950	GORK	1	S	1148.2	1148.6	1.5	5.5			
	2950	GORK	1	S	1149.7	1150.5	1.4	4.2			
	9400	HUAN	20	GRF	1154.8	1216.5	29.2	11.6	7.1		O
	6100	KISV	45	C	1228.2	1231.3	13.0	23.0			
	6100	KISV			1228.2	1236.6		18.0			
	9400	HUAN	3	S	1229.6	1231.0	2.7	23.2	15.2		R
	8400	BERN	21	GRF	1230.0	1230.9	30.0	36.0			
	9500	POTS	23	GRF	1230.0	1231.0	40.0	25.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	9400	HUAN	2	S/F	1235.8	1237.3	3.3	9.7	6.5		0
	3000	POTS	3	S	1253.5	1254.0	3.0	11.0			
	1470	POTS	3	S	1253.7	1254.2	4.8	8.0			
	2800	OTTA	240	AR	1310.0	1335.0	25.0	16.0	8.0		
	2695	ATHN	4	S/F	1312.3	1316.6	8.0	23.0			QL=6 ST=2 TYP=3
	2800	OTTA	3	S	1315.0	1318.0	4.0	12.4	6.2		
	9500	POTS	20	GRF	1315.0	1500.0	120.0D	38.0			
	3000	POTS	23	GRF	1315.0	1500.2	120.0D	94.0			
	1470	POTS	22	GRF	1315.0	1500.3	120.0D	51.0			
	9400	HUAN	21	GRF	1316.5	1334.5	63.0	17.4	9.1		0
	4995	SGMR	8	S	1317.8	1318.0	.3	13.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	1327.8	1328.0	.5	20.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1327.8	1329.6	16.8	42.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	1328.0	1329.3	1.3D	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1328.3	1329.6	2.3	24.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1328.5	1329.6	1.3	20.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1344.6	1346.6	2.0D	17.0			QL=6 ST=2 TYP=3
	2695	SGMR	20	GRF	1344.6	1346.6	14.0	50.0			QL=6 ST=2 TYP=2
	1415	SGMR	4	S/F	1345.0	1346.1	4.6	22.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	1347.3	1347.5	.3	17.0			QL=6 ST=2 TYP=3
	9400	HUAN	1	S	1351.6	1352.6	2.2	19.3	3.7		0
	9400	HUAN	2	S/F	1404.7	1406.0	4.6	7.7	3.5		R
	2800	OTTA	21	GRF	1415.0	1555.0	340.0	44.0	26.0		
	2800	OTTA	1	S	1420.0	1423.0	5.0	7.4	3.8		
	2800	OTTA	4	S/F	1430.0	1434.5	7.0	22.4	10.4		
	2695	SGMR	8	S	1433.8	1434.3	.5D	46.0			QL=6 ST=2 TYP=3
	2800	OTTA	21	GRF	1439.0		52.0	37.0	24.0		
	930	BORD	23	GRF	1442.0	1500.0	33.0	43.0	6.0		
	2695	SGMR	8	S	1442.3	1444.1	1.8D	44.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1442.8	1444.8	2.0D	18.0			QL=6 ST=2 TYP=3
	1415	SGMR	20	GRF	1443.3	1448.6	33.3	32.0			QL=6 ST=2 TYP=2
	610	SGMR	8	S	1445.8	1447.3	1.5D	20.0			QL=6 ST=2 TYP=3
	9400	HUAN	23	GRF	1449.3	1755.5	186.2U	77.3	26.8		R
	8800	SGMR	8	S	1454.5	1455.8	1.3	20.0			QL=6 ST=2 TYP=3
	2800	OTTA	4	S/F	1458.0	1500.0	11.0	32.0	14.0		
	410	SGMR	8	S	1459.3	1500.1	.8D	17.0			QL=6 ST=2 TYP=3
	9400	HUAN	2	S/F	1542.1	1544.0	3.1	17.4	9.0		0
	9400	HUAN	4	S/F	1551.1	1556.5	12.2	27.0	14.8		0
	245	SGMR	47	GB	1616.0	1616.3	1.1	210.0			QL=6 ST=2 TYP=5
	2800	OTTA	1	S	1616.0	1616.5	1.0	4.4	2.2		
	9400	HUAN	2	S/F	1714.7	1717.7	4.9	19.3	8.7		0
	2800	OTTA	22	GRF	1725.0	1735.0	55.0	19.0	11.0		
	4995	SGMR	20	GRF	1726.1	1744.5	59.7	41.0			QL=6 ST=2 TYP=2
	8800	SGMR	20	GRF	1728.1	1752.5	57.7	53.0			QL=6 ST=2 TYP=2
	2800	OTTA	22	GRF	1830.0	1838.0	40.0	34.6	12.0		
	9400	HUAN	45	C	1831.4	1839.0	17.9	50.2	29.9		R
	9400	HUAN			1831.4	1840.3		51.2			R
	8800	PALE	47	GB	1833.8	1835.1	12.5	31.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	1836.1	1837.1	7.7	36.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1836.3	1838.3	7.0	80.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1837.8	1838.1	6.2	50.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	1837.8	1838.6	4.0	21.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1838.3	1838.6	8.8	32.0			QL=6 ST=2 TYP=3
	2800	OTTA	1	S	1931.0	1932.0	3.0	4.0	2.0		
	9400	HUAN	2	S/F	2008.3	2009.2	1.9	11.6	6.2		0
	9400	HUAN	20	GRF	2024.4	2031.8	15.1	19.3	10.5		R
	2800	OTTA	21	GRF	2025.0	2220.0	170.0	17.0	8.5		
	500	HIRA	22	GRF	2033.0	2053.0	133.0	14.0	5.0		SL
	9400	HUAN	45	C	2045.5	2046.3	3.8	42.5	21.7		0
	8800	PALE	47	GB	2046.0	2046.3	3.3	60.0			QL=6 ST=2 TYP=5
	2800	OTTA	3	S	2046.0	2047.0	4.0	10.6	4.0		
	8800	SGMR	8	S	2046.1	2046.3	.4	24.0			QL=6 ST=2 TYP=3
	610	PALE	4	S/F	2046.3	2047.1	9.5	32.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2046.3	2047.6	2.0	20.0			QL=6 ST=2 TYP=3
	610	SGMR	4	S/F	2053.3	2054.1	3.0	28.0			QL=6 ST=2 TYP=3
	200	HIRA	41	F	2054.4	2058.6	7.0	240.0			ML
	9400	TYKW	21	GRF	2115.0	2124.0	30.0	11.0	5.0		
	3750	TYKW	5	S	2128.0	2129.0	14.0	5.0	2.0		
	9400	TYKW	5	S	2133.4	2133.7	1.5	19.0	6.0		
	15400	PALE	8	S	2133.6	2133.8	.7	58.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	17000	NOBE	1	S	2133.7	2133.8	.6	64.0			R
	2000	TYKW	20	GRF	2135.0	2222.0	105.0	6.0	3.0		
	9400	TYKW	21	GRF	2150.0	2155.0	60.0	8.0	4.0		
	3750	TYKW	21	GRF	2150.0	2227.0	90.0	16.0	6.0		
	9400	TYKW	45	C	2157.0	2159.6	4.0	17.0	4.0		
	8800	SGMR	4	S/F	2159.3	2159.6	3.0	33.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2159.3	2201.5	4.5	19.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2159.5	2201.3	8.3	39.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	2205.0	2211.0	32.0	22.0	9.0		
	4995	SGMR	8	S	2207.6	2207.6	.2	20.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	2210.0	2212.0	5.0	3.0	1.0		
	3750	TYKW	5	S	2219.5	2220.4	1.5	4.0	1.5		
	1000	TYKW	45	C	2220.0	2220.3	1.0	13.0	2.0		
	1000	TYKW	5	S	2227.0	2228.3	3.0	4.0	1.5		
	3750	TYKW	5	S	2301.0	2302.1	6.0	2.0	.7		
	3750	TYKW	21	GRF	2335.0	2354.0	65.0	2.0	1.0		
	9400	TYKW	5	S	2352.0	2355.2	6.0	15.0	9.0		
	9400	TYKW	30	PBI	2358.0		25.0	8.0	3.5		
15	200	GORK	44	NS	0305.0E		535.0D		10.0		
	100	GORK	44	NS	0306.0E		474.0D		5.0		
	260	ONDR	44	NS	0622.0E		478.0D				
	127	TORN	43	NS	0732.0		548.0				V1,DISTURBED
	33	UPIC	43	NS	0806.8		540.2				
	29	UPIC	43	NS	0806.9		540.9				
	245	SGMR	43	NS	0943.0	1235.0	853.0D	130.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2100.0E		360.0D		2.0		
	9400	TYKW	45	C	0001.5	0004.0U	10.0	10.0D	4.0D		
	3750	TYKW	45	C	0016.0	0018.3	5.0	8.0	1.5		
	3750	TYKW	28	PRE	0032.0	0219.0	117.0	7.0	4.0		
	9400	TYKW	28	PRE	0034.0	0218.0	104.0	19.0	7.0		
	3750	TYKW	5	S	0035.0	0035.7	3.0	3.0	1.0		
	9395	PEKG	45	C	0035.0	0053.7	30.0	65.7	34.5		
	9400	TYKW	45	C	0039.0	0053.5	27.0	58.0	17.0		
	4995	LEAR	4	S/F	0040.1	0052.8	87.0D	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0040.1	0053.3	17.2	62.0			QL=6 ST=2 TYP=5
	3750	TYKW	5	S	0044.0	0046.0	7.0	3.0	1.5		
	2000	TYKW	28	PRE	0055.0	0134.0	84.0	6.0	3.0		
	9400	TYKW	5	S	0112.0	0112.7	2.0	4.0	1.5		
	9400	TYKW	45	C	0118.0	0130.7	21.0	21.0	9.0		
	3750	TYKW	21	GRF	0120.0	0149.0	55.0	8.0	4.0		
	1000	TYKW	21	GRF	0120.0	0250.0	320.0	2.0	1.0		
	3750	TYKW	5	S	0121.0	0131.7	18.0	7.0	3.0		
	8800	LEAR	4	S/F	0129.1	0130.6	9.4	29.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0129.1	0130.6	2.4	16.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	0139.0		14.0	8.0	4.0		
	2000	TYKW	21	GRF	0143.0	0148.0	30.0	5.0	2.0		
	9400	TYKW	5	S	0159.0	0202.0	7.0	4.0	2.0		
	9400	TYKW	5	S	0211.0	0211.3	1.0	30.0	12.0		
	3750	TYKW	5	S	0211.0	0211.3	1.0	8.0	2.5		
	2695	LEAR	47	GB	0211.1	0211.1	.7	60.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	0211.1	0211.1	.2	20.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0211.1	0211.1	.7	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0211.1	0211.1	2.9	35.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0211.2	0211.4	1.0	1.5	.5		
	2000	TYKW	5	S	0211.2	0211.4	.8	3.0	1.0		
	9400	TYKW	29	PBI	0212.0		4.0	6.0	3.0		
	9400	TYKW	45	C	0218.0	0224.0	25.0	156.0	85.0		
	9395	PEKG	45	C	0218.0	0224.0	17.0	137.0	15.3		
	2695	LEAR	47	GB	0218.8	0224.1	56.2	36.0			QL=6 ST=3 TYP=5
	4995	LEAR	47	GB	0218.8	0224.3	56.2	60.0			QL=6 ST=3 TYP=5
	8800	LEAR	47	GB	0218.8	0224.3	56.2	180.0			QL=6 ST=3 TYP=5
	2000	TYKW			0219.0	0224.3		16.0			
	3750	TYKW	45	C	0219.0	0224.3	14.0	51.0	31.0		
	2000	TYKW	45	C	0219.0	0319.0	71.0	36.0	20.0		
	15400	LEAR	4	S/F	0219.1	0223.6	55.9	30.0			QL=6 ST=3 TYP=3
	17000	NOBE	21	GRF	0221.0	0426.0	240.0D	68.0			R
	15400	LEAR	8	S	0223.5	0223.6		30.0			QL=6 ST=3 TYP=3
	8800	LEAR	47	GB	0223.5	0224.0		180.0			QL=6 ST=3 TYP=5
	2695	LEAR	8	S	0223.5	0224.1		36.0			QL=6 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	4995	LEAR	47	GB	0223.5	0224.3		60.0			QL=6 ST=3 TYP=5
	3750	TYKW	30	PBI	0233.0		230.0	36.0	18.0		
	9395	PEKG	30	PBI	0235.0		50.0D	96.0			
	9400	TYKW	30	PBI	0243.0		243.0	53.0	27.0		
	9400	TYKW	5	S	0244.8	0244.9	.5	3.0	1.0		
	3750	TYKW	21	GRF	0245.0	0405.0	215.0	36.0	25.0		
	3750	TYKW	45	C	0246.0	0251.0	13.0	6.0	2.0		
	9400	TYKW	45	C	0246.5	0251.5	16.0	22.0	9.0		
	9395	PEKG	3	S	0247.0	0250.0	9.0	21.0	10.2		
	1000	TYKW	21	GRF	0257.0	0330.0	210.0	6.0	3.0		
	9400	TYKW	45	C	0307.0	0324.3	22.0	16.0	5.0		
	1415	LEAR	4	S/F	0308.1	0309.6	6.9	11.0			QL=6 ST=3 TYP=3
	3750	TYKW	5	S	0312.8	0313.4	2.0	5.0	1.5		
	2950	GORK	22	GRF	0318.0E	0406.0	273.0D	59.0			
	3750	TYKW	5	S	0318.3	0319.1	2.0	3.0	1.0		
	2000	TYKW	30	PBI	0330.0		190.0	33.0	22.0		
	3750	TYKW	5	S	0333.0	0333.4	2.5	13.0	3.0		
	2695	LEAR	8	S	0333.1	0333.3	1.9	11.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0333.1	0333.3	.2	30.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0333.1	0333.3	2.0	8.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0333.2	0333.4	2.5	52.0	10.0		
	2000	TYKW	5	S	0333.2	0333.4	.8	5.0	1.5		
	8800	LEAR	47	GB	0333.3	0333.3	1.5	60.0			QL=6 ST=2 TYP=5
	4995	LEAR	8	S	0333.3	0333.3	1.5	24.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0333.3	0333.5	1.0	2.0	.7		
	15400	LEAR	8	S	0333.3	0333.5	1.5	20.0			QL=6 ST=2 TYP=3
	17000	NOBE	1	S	0333.3	0333.5	.8	18.0			R
	500	HIRA	42	SER	0334.0	0338.0	4.6	35.0			0
	3750	TYKW	45	C	0337.0	0338.3	5.0	22.0	3.0		
	9400	TYKW	5	S	0337.0	0338.4	5.0	13.0	4.0		
	1000	TYKW	45	C	0337.0	0338.6	3.0	5.0	1.0		
	9400	TYKW	21	GRF	0337.0	0417.0U	165.0	48.0	32.0		INTERFERENCE
	4995	LEAR	4	S/F	0337.3	0338.3	3.5	31.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0337.6	0338.1	1.2	10.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0337.6	0338.3	3.7	18.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0337.8	0338.1	1.3	15.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0338.0	0338.5	1.5	5.0	1.5		
	1415	LEAR	8	S	0338.0	0338.5	1.1	4.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0338.1	0338.1	.1D	15.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0338.1	0338.1	.2	24.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0358.0	0358.7	3.0	6.0	3.0		
	3750	TYKW	5	S	0358.0	0359.0	5.0	12.0	4.5		INTERFERENCE
	9100	GORK	21	GRF	0400.0E		483.0D				
	2000	TYKW	29	PBI	0401.0		6.0	1.5	.7		
	2000	TYKW	20	GRF	0410.0	0419.0	35.0	4.0	2.0		
	3750	TYKW	20	GRF	0410.0	0421.0	35.0	9.0	4.0		
	3750	TYKW	5	S	0452.0	0456.0	10.0	3.0	1.0		
	200	HIRA	46	C	0509.6	0511.3	4.3	205.0	68.0		ML
	9400	TYKW	21	GRF	0512.0	0522.0	40.0	8.0	4.0		
	9400	TYKW	5	S	0530.0	0532.0	10.0	4.0	2.0		
	3750	TYKW	5	S	0531.0	0533.0	5.0	3.0	1.5		
	245	LEAR	47	GB	0546.3	0546.3	.5	169.0			QL=6 ST=2 TYP=5
	2000	TYKW	5	S	0613.5	0613.6	.5	5.0	1.5		
	3750	TYKW	31	ABS	0633.0	0700.0	135.0	-15.0	-8.0		
	2000	TYKW	31	ABS	0640.0	0800.0	125.0	-5.0	-2.0		
	9400	TYKW	31	ABS	0646.0	0755.0	125.0	-10.0	-6.0		
	2000	TYKW	5	S	0709.4	0709.5	.5	4.0	1.5		
	610	LEAR	8	S	0733.1	0733.6	1.2	34.0			QL=6 ST=2 TYP=3
	2950	GORK	21	GRF	0838.0	0936.5	208.0D	13.5			
	200	HIRA	46	C	0842.6	0843.1	1.0	92.0	24.0		ML
	100	HIRA	46	C	0846.6		.8	10000.0D	1490.0D		
	6100	KISV	2	S/F	0848.0	0850.0	5.0	7.0			
	200	HIRA	46	C	0906.3	0907.0	1.2	43.0	16.0		ML
	9500	POTS	20	GRF	0909.0	0940.0	66.0	19.0			
	1470	POTS	4	S/F	0910.0	0910.7	3.5	24.0			
	930	BORD	41	F	0910.0	0911.2	1.4	62.0	2.0		
	950	GORK	2	S/F	0910.3	0910.7	1.3	10.0			
	2950	GORK	1	S	0917.5	0919.2	5.2	6.7			
	200	HIRA	46	C	0937.1	0937.6	1.1	49.0U	32.0U		ML,SUNSET
	536	ONDR	8	S	1020.7	1020.7	.1	18.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	15000	KISV	1	S	1041.2	1042.4		51.0			
	9500	POTS	21	GRF	1053.0	1059.5	42.0	11.0			
	11800	BERN	41	F	1055.0U	1110.4	20.0U	58.0			
	8400	BERN	41	F	1055.0U	1113.3	20.0U	29.0			
	9500	POTS	3	S	1110.0	1110.4	1.5	21.0			
	19600	BERN	3	S	1110.0	1110.4	1.0	33.0			
	9100	GORK	1	S	1110.2	1110.5	.8	25.0	12.0		
	536	ONDR	8	S	1111.9	1111.9	.2	56.0			
	6100	KISV	1	S	1112.8	1113.3	1.0	13.0			
	9500	POTS	8	S	1113.0	1113.2	.2	20.0			
	9100	GORK	1	S	1113.0	1113.2	.7	28.0	14.0		
	2950	GORK	1	S	1113.0	1113.2	.8	4.1			
	4995	ATHN	8	S	1113.1	1113.5	.7	11.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1113.1	1113.5	.7	33.0			QL=6 ST=2 TYP=3
	536	ONDR	40	F	1145.8	1149.3	4.4	12.0			
	9500	POTS	21	GRF	1222.0	1235.0	38.0	27.0			
	6100	KISV	20	GRF	1226.5	1231.2	21.5	18.0			
	2800	OTTA	20	GRF	1227.0	1232.0	33.0	10.8	5.0		
	2695	SGMR	47	GB	1227.8	1230.1	4.7	80.0			QL=2 ST=2 TYP=5
	9400	HUAN	21	GRF	1228.1	1231.2	21.3	15.9	8.3		0
	4995	SGMR	4	S/F	1229.1	1231.1	9.0	28.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1229.1	1235.1	26.0	16.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1229.1	1235.1	26.0	29.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1232.5	1232.6	.1	33.0			QL=6 ST=2 TYP=3
	9400	HUAN	1	S	1233.3	1235.0	2.4	17.6	7.0		0
	234	POTS	41	F	1234.3	1234.4	.9	150.0	3.0		III
	113	POTS	41	F	1234.3	1235.1	1.5	2400.0	100.0		III
	536	ONDR	8	S	1257.9	1257.9	.1	8.0			
	9400	HUAN	21	GRF	1309.0	1322.0	30.5	9.7	3.6		0
	9500	POTS	21	GRF	1316.5	1317.5	44.0	16.0			
	9400	HUAN	2	S/F	1316.7	1317.5	2.3	12.3	5.7		0
	2800	OTTA	4	S/F	1326.5	1327.0	1.0	12.6	6.0		
	234	POTS	4	S/F	1340.5	1340.6	.8	100.0	30.0		III
	113	POTS	4	S/F	1340.6	1340.6	.1	300.0	100.0		III
	234	POTS	4	S/F	1349.7	1349.7	.8	400.0	40.0		
	2800	OTTA	21	GRF	1420.0	1445.0	90.0	6.0	3.0		
	9400	HUAN	20	GRF	1432.6	1433.6	16.8	5.3	4.1		0
	9400	HUAN	21	GRF	1523.7	1542.0	33.0	3.5	1.8		0
	4995	ATHN	47	GB	1525.5	1527.6	9.3	58.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1525.8	1527.3	2.8	66.0			QL=6 ST=2 TYP=5
	2800	OTTA	4	S/F	1526.0	1527.5	4.0	10.2	3.4		
	2695	ATHN	4	S/F	1526.1	1527.1	8.7	17.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1526.1	1527.6	3.0	40.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1526.3	1527.6	3.5	35.0			QL=2 ST=2 TYP=3
	9400	HUAN	1	S	1526.4	1527.7	2.3	28.2	26.5		0
	8800	SGMR	8	S	1526.8	1527.3	1.0	39.0			QL=6 ST=2 TYP=3
	9400	HUAN	20	GRF	1609.6	1619.0	25.4	7.0	1.4		0
	2800	OTTA	1	S	1738.5	1739.0	2.0	9.8	3.3		
	4995	SGMR	8	S	1738.6	1738.8	.5	23.0			QL=6 ST=2 TYP=3
	2800	OTTA	1	S	1744.0	1744.3	3.0	8.4	2.2		
	9400	HUAN	20	GRF	1752.1	1802.2	20.1	7.0	6.3		0
	9400	HUAN	2	S/F	1840.0	1841.4	6.4	8.8	3.0		R
	9400	HUAN	2	S/F	2052.7	2055.9	8.3	17.6	5.9		0
	200	HIRA	46	C	2055.0	2055.7	1.6	268.0	72.0		WL
	100	HIRA	41	F	2055.1	2055.6	1.6	370.0			ML
	245	SGMR	8	S	2055.3	2055.3	1.3	830.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	2055.6	2055.8	.2	84.0			QL=6 ST=2 TYP=5
	9400	TYKW	28	PRE	2130.0	2205.0	35.0	6.0	3.0		
	3750	TYKW	28	PRE	2130.0	2205.0	35.0	5.0	3.0		
	2000	TYKW	21	GRF	2130.0	2314.0	320.0	11.0	6.0		
	1000	TYKW	21	GRF	2130.0	2314.0	320.0	5.0	2.0		
	2800	OTTA	23	GRF	2135.0	0045.0	260.0D	41.8			
	3750	TYKW	45	C	2205.0	2206.4	9.0	39.0	23.0		
	9400	TYKW	45	C	2205.0	2206.5	9.0	87.0	44.0		
	2000	TYKW	45	C	2205.0	2209.7	20.0	15.0	6.0		
	9400	HUAN	45	C	2205.2	2206.5	9.4	100.5	34.2		R
	2800	OTTA	4	S/F	2205.2	2209.5	17.0	20.8	10.0		
	9400	HUAN			2205.2	2211.6		99.7			R
	17000	NOBE	7	C	2205.3	2206.6	13.0	27.0			R
	4995	SGMR	47	GB	2205.5	2206.5	11.3	56.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	8800	PALE	47	GB	2205.5	2206.8	10.3	87.0			QL=5 ST=2 TYP=5
	8800	SGMR	47	GB	2205.6	2206.5	7.7	56.0			QL=6 ST=2 TYP=5
	15400	SGMR	4	S/F	2205.6	2206.5	7.7	49.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	2206.3	2206.8	8.3	50.0			QL=5 ST=2 TYP=5
	2695	PALE	4	S/F	2209.6	2209.6	3.5	20.0			QL=5 ST=2 TYP=3
	2695	SGMR	8	S	2211.6	2213.1	1.7	30.0			QL=6 ST=2 TYP=3
	3750	TYKW	30	PBI	2214.0		335.0	18.0	10.0		
	9400	TYKW	30	PBI	2214.0		325.0	28.0	14.0		
	2000	TYKW	30	PBI	2225.0		35.0	4.0	2.0		
	9400	TYKW	5	S	2226.0	2230.0	23.0	8.0	4.0		
	2000	TYKW	5	S	2227.0	2230.0	20.0	4.0	2.0		
	3750	TYKW	5	S	2228.0U	2230.0	20.0U	6.0	3.0U		INTERFERENCE
	2000	TYKW	8	S	2300.6	2300.7	.2	47.0	14.0		
	1000	TYKW	8	S	2300.7	2300.8	.2	7.0	2.0		
	3750	TYKW	5	S	2302.0	2305.0	20.0U	4.0	1.5U		
	9400	TYKW	21	GRF	2303.0	2315.0U	40.0	8.0	3.0		INTERFERENCE
	2840	PEKG	20	GRF	2325.0	2339.0	31.0	14.4			
	9400	TYKW	5	S	2331.0	2331.6	3.0	11.0	3.0		
	3750	TYKW	5	S	2342.0	2347.0	14.0	4.0	1.5		
	245	LEAR	4	S/F	2342.0	2342.3	2.8	40.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	2346.0	0002.3	23.0	22.0	11.0D		
	9395	PEKG	2	S/F	2354.0	2359.0	21.0	11.2	5.8		
	3750	TYKW	5	S	2358.0	0003.0U	20.0	3.0D	1.5D		
16	200	GORK	44	NS	0257.0E		546.0D		5.0		
	33	UPIC	43	NS	0448.2		821.8D				
	29	UPIC	43	NS	0448.3		821.7D				
	245	LEAR	43	NS	0456.6	0458.6	282.4D	53.0			QL=6 ST=2 TYP=1
	260	ONDR	44	NS	0557.0E	0854.0U	495.0D				
	245	SGMR	43	NS	0943.0	2108.6	852.0D	300.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1720.8	0432.6	679.2D	180.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	1930.0E	0040.0	860.0D	18.0	8.0		ML
	100	HIRA	44	NS	1930.0E	0040.0	860.0D	30.0	20.0		WL
	208	VORO	44	NS	2100.0E		360.0D		5.0		
	245	LEAR	43	NS	2321.0	0738.3	618.0D	189.0			QL=6 ST=2 TYP=1
	9400	TYKW	29	PBI	0009.0		10.0	7.0	3.0		
	3750	TYKW	45	C	0020.0	0027.8	50.0	35.0	21.0		
	9400	TYKW	45	C	0020.0	0028.4	44.0	88.0	35.0		
	2000	TYKW	21	GRF	0020.0	0036.0	140.0	8.0	4.0		
	9395	PEKG	45	C	0021.0	0028.5	9.0	87.0	42.0		
	4995	LEAR	47	GB	0021.8	0024.1	43.2	50.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB.	0022.1	0024.3		40.0			QL=6 ST=2 TYP=5
	17000	NOBE	7	C	0022.5	0028.5	30.0	27.0			R
	4995	PALE	47	GB	0023.0	0026.1	26.0	50.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0023.6	0024.3	43.7	53.0			QL=6 ST=2 TYP=5
	15400	PALE	4	S/F	0023.8	0024.5	21.7	30.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0023.8	0026.1	41.5	13.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	0024.0	0024.3	21.6	46.0			QL=6 ST=2 TYP=5
	35000	NAGO	20	GRF	0027.0	0035.0	33.0	6.0			
	2000	TYKW	8	S	0027.6	0027.7	.2	17.0	4.0		
	2000	TYKW	20	GRF	0030.0	0100.0	130.0	1.5	.7		
	9395	PEKG	29	PBI	0030.0		43.0	43.0	19.0		
	2000	TYKW	5	S	0040.0	0042.0	15.0	3.0	1.0		
	2000	TYKW	5	S	0056.0	0059.0	7.0	2.5	1.0		
	100	HIRA	46	C	0058.0	0058.3	2.0D	3000.0	960.0		WL
	245	LEAR	49	GB	0059.6	0059.8	1.0	730.0			QL=6 ST=2 TYP=6
	245	PALE	49	GB	0059.8	0059.8	1.3	930.0			QL=6 ST=2 TYP=6
	9400	TYKW	30	PBI	0104.0		70.0	20.0	8.0		
	3750	TYKW	30	PBI	0110.0		105.0	12.0	5.0		
	245	LEAR	8	S	0119.8	0120.0	1.0	22.0			QL=6 ST=2 TYP=3
	2000	TYKW	20	GRF	0120.0	0140.0	70.0	2.0	1.0		
	3750	TYKW	20	GRF	0120.0	0143.5	50.0	6.0	3.0		
	100	HIRA	8	S	0133.0	0133.2	.3	2500.0			WL
	9400	TYKW	5	S	0152.3	0152.7	1.5	5.0	1.5		
	9400	TYKW	21	GRF	0216.0	0220.0	40.0	7.0	3.0		
	3750	TYKW	20	GRF	0218.0	0220.2	35.0	4.0	2.0		
	200	HIRA	8	S	0232.5		.4	80.0D			WR
	9400	TYKW	5	S	0243.0	0243.5	1.5	4.0	1.5		
	2000	TYKW	8	S	0248.7	0248.8	.3	3.0	1.0		
	500	HIRA	8	S	0249.6	0249.7	.5	500.0			WR

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16	410	LEAR	47	GB	0250.0	0250.1	.1	139.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	0304.8	0305.3	4.2	30.0			QL=6 ST=2 TYP=3
	9395	PEKG	3	S	0305.0	0305.5	3.0	19.6	5.6		
	8800	PALE	8	S	0305.1	0305.6	1.5	41.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0307.0E	0307.0U	12.0D	5.0D	2.0D		
	100	HIRA	42	SER	0314.3	0326.0	20.5	5000.0			O
	9400	TYKW	45	C	0321.0	0321.8	15.0	54.0	13.0		
	2000	TYKW	45	C	0321.0	0322.2	13.0	20.0	2.0		
	35000	NAGO	5	S	0321.0	0322.0	1.0	60.0			
	8800	LEAR	47	GB	0321.1	0321.8	1.4	55.0			QL=6 ST=2 TYP=5
	17000	NOBE	7	C	0321.2	0322.5	12.0	171.0			R
	500	HIRA	42	SER	0321.3	0326.0	7.0	70.0			WRWL
	200	GORK	41	F	0321.4	0322.7	7.2	45.0			
	200	GORK			0321.4	0326.2		340.0			
	2000	TYKW	45	C	0321.5	0322.2	2.0	12.0	1.5		
	15400	LEAR	47	GB	0321.5	0322.3	1.3	169.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	0321.5	0322.3	2.0	180.0			QL=6 ST=2 TYP=5
	650	GORK	2	S/F	0321.5	0322.3	1.7	76.0			
	8800	PALE	47	GB	0321.6	0322.3	1.7	79.0			QL=6 ST=2 TYP=5
	100	GORK	41	F	0321.7	0322.9	6.0	70.0D			
	100	GORK			0321.7	0325.1		70.0D			
	100	GORK			0321.7	0326.2		870.0			
	950	GORK	40	F	0321.8	0325.1	6.0	45.0			
	9100	GORK	23	GRF	0323.6		502.0D				
	3750	TYKW	5	S	0324.0	0326.7	11.0	8.0	3.0		
	8800	LEAR	4	S/F	0324.0	0326.8	3.5	40.0			QL=6 ST=2 TYP=3
	2950	GORK	22	GRF	0324.0E	0509.0	245.0D	14.0			
	1415	LEAR	8	S	0324.3	0324.8	1.7	40.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	0324.5	0325.0	6.0	72.0	3.0		
	15400	LEAR	4	S/F	0324.6	0324.8	3.0	33.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	0324.6	0326.8	2.5	60.0			QL=6 ST=2 TYP=5
	9100	GORK	4	S/F	0324.6	0328.0	5.6	33.0			
	650	GORK	46	C	0324.7	0325.2	4.3	17.0			
	650	GORK			0324.7	0328.2		21.0			
	15400	PALE	8	S	0324.8	0325.0	1.2	44.0			QL=6 ST=2 TYP=3
	610	LEAR	4	S/F	0324.8	0326.1	2.8	28.0			QL=6 ST=2 TYP=3
	610	PALE	4	S/F	0324.8	0326.3	2.3	31.0			QL=6 ST=2 TYP=3
	200	HIRA	46	C	0325.0		3.4	80.0D	19.0D		WL
	410	LEAR	47	GB	0325.1	0325.5	2.5	260.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0325.1	0325.6	2.0	77.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0326.0	0326.1	.8	160.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0326.0	0326.3	1.1	169.0			QL=6 ST=2 TYP=5
	610	PALE	8	S	0327.1	0327.3	1.5	31.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	0327.1	0328.0	2.0	130.0			QL=6 ST=2 TYP=5
	8800	PALE	4	S/F	0327.1	0329.1	3.0	36.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0327.8	0328.0	1.3	160.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0330.8	0331.3	1.2	30.0			QL=6 ST=2 TYP=3
	650	GORK	1	S	0330.8	0332.0	3.2	2.6			
	245	LEAR	47	GB	0331.6	0331.6	.2	160.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0331.6	0331.8	1.2	180.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0337.1	0337.1	.4	22.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0344.0	0344.3	2.0	11.0	4.0		
	9100	GORK	1	S	0344.1	0344.3	1.1	8.0	4.0		
	9400	TYKW	5	S	0359.0	0402.2	5.0	24.0	8.0		RAIN
	3750	TYKW	21	GRF	0359.0	0430.0	170.0	4.0	2.0		
	9400	TYKW	21	GRF	0359.0	0840.0	329.0D	12.0	10.0D		RAIN
	2000	TYKW	21	GRF	0400.0	0523.0	200.0	2.0	1.0		
	9395	PEKG	3	S	0400.0	0402.3	10.0	31.4	10.2		
	2000	TYKW	45	C	0401.0	0403.0	3.0	6.0	.7		
	6100	KISV	2	S/F	0401.0	0402.3	3.5	7.0			
	9100	GORK	1	S	0401.6	0402.3	1.4	18.0	9.0		
	9400	TYKW	29	PBI	0404.0		17.0	9.0	4.0		
	245	LEAR	8	S	0424.0	0425.0	1.8	28.0			QL=6 ST=2 TYP=3
	9395	PEKG	3	S	0425.0	0427.2	7.0	27.5	9.3		
	9400	TYKW	20	GRF	0426.0	0435.0	30.0	4.0	2.0		
	245	LEAR	8	S	0431.5	0431.6	.1	18.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	0454.0	0454.2	1.0	2.0	1.0		
	3750	TYKW	21	GRF	0504.0	0510.0	80.0	6.0	2.0		
	2000	TYKW	5	S	0506.0	0508.5	12.0	2.0	1.0		
	9400	TYKW	45	C	0535.0	0603.3U	40.0U	11.0	5.0U		RAIN

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	3750	TYKW	20	GRF	0539.0	0541.0	35.0	3.0	1.5		
	2000	TYKW	5	S	0540.0	0542.0	7.0	1.0	.5		
	2000	TYKW	20	GRF	0548.0	0605.0U	40.0	4.0D	1.5D		
	950	GORK	4	S/F	0555.1	0555.6	1.0	42.0			
	650	GORK	2	S/F	0555.5	0555.7	.5	3.0			
	410	LEAR	8	S	0603.1	0603.3	.2	28.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0620.0	0630.0	15.0D	7.0	3.0D		RAIN
	3750	TYKW	21	GRF	0720.0	0800.0	85.0	10.0	5.0		
	113	POTS	4	S/F	0723.1	0723.2	.4	350.0	50.0		
	2000	TYKW	20	GRF	0733.0	0806.0	40.0	8.0	3.0		
	410	LEAR	8	S	0734.1	0734.3	.2	16.0			QL=6 ST=2 TYP=3
	2950	GORK	23	GRF	0734.1	0820.2	251.0D	17.5			
	6100	KISV	21	GRF	0754.9	0807.0	30.0	19.0			
	9400	TYKW	45	C	0800.0	0811.0	35.0	18.0	10.0		RAIN
	3750	TYKW	45	C	0801.0	0807.0	35.0	13.0	5.0		
	930	BORD	8	S	0801.0	0801.2	.4	57.0	2.0		
	9500	POTS	20	GRF	0801.0	0811.0	41.0	21.0			
	9395	PEKG	20	GRF	0801.0	0811.5	29.0	23.5	5.6		
	2950	GORK	1	S	0806.5	0807.0	1.4	5.0			
	410	LEAR	8	S	0813.6	0814.0	1.2	13.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0813.6	0814.0	.7	23.0			QL=6 ST=2 TYP=3
	204	IZMI	41	F	0845.8	0908.9	30.0	250.0			
	200	GORK	41	F	0846.0	0856.9	29.2	60.0			
	200	GORK			0846.0	0908.8		340.0			
	200	GORK			0846.0	0912.6		170.0			
	245	LEAR	49	GB	0849.6	0855.6	8.4	3500.0			QL=6 ST=2 TYP=6
	100	HIRA	42	SER	0850.0	0922.2	33.7	1000.0			0
	9400	TYKW	45	C	0851.0	0901.0	34.0	38.0	10.0U		RAIN
	950	GORK	2	S/F	0851.5	0854.7	6.2	4.0			
	100	GORK	4	S/F	0852.0	0856.9	5.5	90.0			
	410	LEAR	47	GB	0852.1	0854.6	5.5	400.0			QL=6 ST=2 TYP=5
	200	HIRA	42	SER	0852.3	0908.6	23.0	360.0			SL
	2695	ATHN	4	S/F	0852.6	0853.3	12.5	19.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0852.6	0854.6	3.4	13.0			QL=6 ST=2 TYP=3
	234	POTS	42	SER	0852.9	0855.4	21.0	1900.0			
	3750	TYKW	45	C	0853.0	0854.6	25.0	19.0	4.0D		
	2000	TYKW	45	C	0853.0	0854.7	6.0	4.0	1.0		
	536	ONDR	41	F	0853.3	0854.7	6.8	14.0	7.0		
	2000	TYKW	45	C	0853.5	0854.5	18.0U	13.0	3.0D		
	6100	KISV			0853.8	0854.6		9.0			
	6100	KISV			0853.8	0855.6		7.0			
	6100	KISV	23	GRF	0853.8	0901.0	17.0	21.0			
	2695	LEAR	4	S/F	0854.1	0854.5	4.2	18.0			QL=6 ST=2 TYP=3
	610	LEAR	4	S/F	0854.1	0856.6	3.0	13.0			QL=6 ST=2 TYP=3
	2950	GORK	4	S/F	0854.2	0854.6	2.2	17.0			
	500	HIRA	45	C	0854.3	0854.5	3.0	45.0	10.0		ML
	650	GORK	2	S/F	0854.3	0856.5	3.0	3.6			
	2950	GORK	2	S/F	0856.4	0857.0	1.5	12.0			
	8400	BERN	21	GRF	0858.0	0928.7	40.0	70.0			
	11800	BERN	21	GRF	0858.0	0928.7	40.0	127.0			
	19600	BERN	21	GRF	0858.0U	0928.7	40.0U	94.0			
	9500	POTS	20	GRF	0858.5	0901.0	25.0	29.0			
	4995	ATHN	20	GRF	0859.3	0901.0	8.7	20.0			QL=6 ST=2 TYP=2
	9100	GORK	2	S/F	0859.8	0901.1	3.1	19.0	10.0		
	8800	ATHN	20	GRF	0859.8	0902.0	10.2	22.0			QL=6 ST=2 TYP=2
	8800	LEAR	4	S/F	0900.6	0901.0	2.5	29.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0901.5	0901.8	.3D	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0901.8	0902.0	1.2	22.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0902.0	0902.8	1.5	58.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0908.3	0908.8	1.5	490.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0908.8	0909.0	.3	32.0			QL=6 ST=2 TYP=3
	1470	POTS	3	S	0911.8	0912.0	.6	7.0			
	245	LEAR	47	GB	0911.8	0912.5	2.7	180.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0911.8	0913.1	2.0	17.0			QL=6 ST=2 TYP=3
	113	POTS	4	S/F	0922.2	0922.4	.2	700.0	140.0		III
	8800	LEAR	47	GB	0928.1	0928.6	2.5	110.0			QL=5 ST=2 TYP=5
	15400	LEAR	47	GB	0928.3	0928.6	1.5	100.0			QL=5 ST=2 TYP=5
	9500	POTS	3	S	0928.5	0928.6	2.5	62.0			
	9100	GORK	3	S	0928.6	0928.7	1.9	73.0	35.0		
	930	BORD	8	S	0939.8	0939.8	.2	21.0	1.0		

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	6100	KISV	21 GRF	0957.8	1010.4	19.0	12.0			
	9500	POTS	20 GRF	0958.4	1007.5	34.0	20.0			
	930	BORD	41 F	1005.0	1005.3	.5	59.0	3.0		
	950	GORK	4 S/F	1005.1	1005.3	.5	33.0			
	9500	POTS	3 S	1040.0	1040.5	1.5	12.0			
	9100	GORK	1 S	1040.2	1040.5	.9	15.0	8.0		
	536	ONDR	8 S	1103.8	1103.9	.2	42.0			
	9400	HUAN	21 GRF	1208.5	1226.3	29.0	7.1	4.0		0
	9400	HUAN	1 S	1221.8	1223.0	2.5	14.2	8.4		0
	2800	OTTA	240AR	1222.0	1228.0	6.0	6.4	3.2		
	1415	SGMR	4 S/F	1222.1	1223.1	2.2	20.0			QL=6 ST=2 TYP=3
	8800	SGMR	4 S/F	1222.1	1223.1	2.5	18.0			QL=6 ST=2 TYP=3
	6100	KISV	2 S/F	1222.3	1223.1	1.5	16.0			
	930	BORD	41 F	1222.5	1222.8	1.5	161.0	7.0		
	2800	OTTA	3 S	1222.5	1223.0	3.5	37.0	10.8		
	2695	SGMR	47 GB	1222.6	1223.1	.7	60.0			QL=2 ST=2 TYP=5
	4995	SGMR	8 S	1222.6	1223.1	.7	30.0			QL=6 ST=2 TYP=3
	536	ONDR	8 S	1222.8	1222.8	.1	28.0			
	808	ONDR	8 S	1222.8	1222.9	.2	29.0			
	2650	DWIN	1 S	1223.0	1223.0	1.0	48.0	20.0		
	2800	OTTA	21 GRF	1242.0	1255.0	60.0	13.6	4.8		
	9400	HUAN	3 S	1243.0	1245.3U	2.3	118.8	91.8		0
	11800	BERN	3 S	1244.0	1245.9	45.0	321.0			
	8400	BERN	3 S	1244.0	1245.9	45.0	298.0			
	19600	BERN	3 S	1244.0	1245.9	45.0	99.0			
	9500	POTS	29 PBI	1244.0	1246.0	46.0	257.0			
	15000	KISV	4 S/F	1244.4	1246.0	6.0	364.0			
	2695	ATHN	4 S/F	1244.5	1245.8	7.0	13.0			QL=6 ST=2 TYP=3
	8800	ATHN	47 GB	1244.5	1245.8	8.6	239.0			QL=6 ST=2 TYP=5
	4995	ATHN	47 GB	1244.5	1245.8	8.6	100.0			QL=6 ST=2 TYP=5
	6100	KISV	4 S/F	1244.5	1246.0	6.0	122.0			
	8800	SGMR	47 GB	1244.6	1245.8	14.2	300.0			QL=6 ST=2 TYP=5
	15400	SGMR	47 GB	1244.6	1246.0	14.9	230.0			QL=6 ST=2 TYP=5
	4995	SGMR	47 GB	1244.8	1246.0	15.0	110.0			QL=6 ST=2 TYP=5
	2650	DWIN	1 S	1245.0	1245.0	2.0	20.0	10.0		
	2800	OTTA	3 S	1245.0	1246.0	4.0	17.6	8.0		
	3000	POTS	29 PBI	1245.0	1246.0	30.0	25.0			
	9400	HUAN	29 PBI	1256.8E	1256.8U	25.9D	23.1	11.8		0
	930	BORD	46 C	1332.0	1333.0	2.0	24.0	4.0		
	1470	POTS	1 S	1332.5	1333.0	1.5	4.0			
	9400	HUAN	20 GRF	1355.2	1409.4	20.4	5.3	3.5		0
	2800	OTTA	21 GRF	1410.0	1500.0	250.0	13.6	6.8		
	2695	ATHN	4 S/F	1456.0	1505.6	19.3	10.0			QL=6 ST=2 TYP=3
	8800	ATHN	4 S/F	1456.0	1505.6	21.6	22.0			QL=6 ST=2 TYP=3
	4995	ATHN	4 S/F	1456.0	1505.6	21.6	24.0			QL=6 ST=2 TYP=3
	1415	ATHN	4 S/F	1458.1	1506.8	21.7	25.0			QL=6 ST=2 TYP=3
	4995	SGMR	4 S/F	1502.3	1502.6	8.8	23.0			QL=6 ST=2 TYP=3
	15400	SGMR	4 S/F	1503.3	1503.6	11.2	29.0			QL=6 ST=2 TYP=3
	11800	BERN	3 S	1515.0	1522.0	7.0D	146.0			
	19600	BERN	3 S	1515.0	1522.2	7.2D	72.0			
	8400	BERN	3 S	1515.0	1522.3	7.3D	165.0			
	35000	BERN	3 S	1515.0	1522.6	7.6D	55.0			
	8800	ATHN	47 GB	1519.8	1521.6	20.5	130.0			QL=6 ST=2 TYP=5
	4995	ATHN	47 GB	1519.8	1521.6	28.0	110.0			QL=6 ST=2 TYP=5
	2695	ATHN	4 S/F	1520.5	1521.6	21.6	27.0			QL=6 ST=2 TYP=3
	1415	ATHN	4 S/F	1520.6	1523.1	21.5	25.0			QL=6 ST=2 TYP=3
	2650	DWIN	1 S	1521.0	1522.0	5.0	30.0	15.0		
	8800	SGMR	47 GB	1521.5	1522.0	4.0	160.0			QL=6 ST=2 TYP=5
	2800	OTTA	3 S	1521.5	1522.2	6.0	30.0	14.8		
	15400	SGMR	47 GB	1521.6	1522.1	4.2	189.0			QL=6 ST=2 TYP=5
	4995	SGMR	47 GB	1521.6	1522.3	3.7	100.0			QL=6 ST=2 TYP=5
	2695	SGMR	8 S	1522.1	1522.8	2.0	41.0			QL=2 ST=2 TYP=3
	930	BORD	46 C	1541.0	1543.5	4.0	75.0	5.0		
	2650	DWIN	1 S	1617.0	1617.0	2.0	30.0	15.0		
	19600	BERN	4 S/F	1617.0	1617.4	2.0	36.0			
	2800	OTTA	3 S	1617.0	1617.4	3.0	35.0	9.0		
	8400	BERN	4 S/F	1617.0	1617.4	2.0	78.0			
	11800	BERN	4 S/F	1617.0	1617.4	2.0	168.0			
	930	BORD	46 C	1617.0	1617.5	3.0	34.0	4.0		
	8800	SGMR	47 GB	1617.1	1617.3	1.2	84.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
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JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	15400	SGMR	47	GB	1617.1	1617.3	.5	110.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1617.1	1617.5	1.5	50.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	1617.1	1617.6	7.0	55.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	1617.1	1617.6	2.4	30.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1617.1	1617.6	2.4	32.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1617.1	1617.6	2.0	72.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	1617.3	1617.3	.3	33.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1617.3	1617.5	1.0	50.0			QL=6 ST=2 TYP=3
	2800	OTTA	40	F	1621.7	1623.0	5.0	10.0			
	930	BORD	41	F	1621.8	1621.8	.1	50.0	1.0		
	245	SGMR	47	GB	1637.8	1638.1	1.3	270.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1638.6	1639.0	.4D	30.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1711.1	1711.3	1.5	46.0			QL=6 ST=2 TYP=3
	2800	OTTA	21	GRF	1830.0	1920.0	150.0	16.2	8.1		
	245	PALE	8	S	1838.6	1838.8	1.5	38.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1850.8	1855.1	23.0	50.0			QL=6 ST=2 TYP=5
	4995	SGMR	20	GRF	1851.6	1854.8	22.2	27.0			QL=6 ST=2 TYP=2
	9400	HUAN	21	GRF	1851.6E	1905.7U	69.6D	21.3	7.1		0
	9400	HUAN	4	S/F	1853.8	1859.3	10.8	26.3	18.4		0
	4995	SGMR	8	S	1924.5	1926.0	1.5D	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1926.0	1926.1	.1	19.0			QL=6 ST=2 TYP=3
	9400	HUAN	3	S	2021.6	2023.3	4.0	22.2	7.7		R
	200	HIRA	46	C	2022.7	2024.0	2.0	135.0	38.0		SL
	2800	OTTA	1	S	2023.0	2023.2	1.0	4.8	1.8		
	2800	OTTA	45	C	2115.0	2144.5	29.5D	27.0	6.4		
	9400	HUAN	21	GRF	2120.8	2142.2	43.3	16.4	6.0		R
	3750	TYKW	45	C	2130.0	2144.6	20.0	47.0	10.0		RAIN
	100	HIRA	42	SER	2136.5	2144.9	11.0	2000.0			0
	9400	HUAN	4	S/F	2136.6	2138.9	4.0	42.7	29.7		R
	9400	TYKW	45	C	2137.0U	2144.6	14.0U	35.0U	6.0U		RAIN
	15400	PALE	4	S/F	2137.8	2138.5	2.3	24.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2138.0	2138.5	2.6	40.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2138.1	2139.1	2.7	30.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	2143.0	2144.6	3.0	10.0	1.5		
	2000	TYKW	5	S	2143.0	2144.7	6.0	12.0	3.0		
	9400	HUAN	3	S	2144.0	2144.7	3.6	34.5	19.2		R
	245	SGMR	8	S	2144.3	2144.6	.7	36.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2144.3	2144.6	1.5	46.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2144.3	2144.6	.7	40.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2144.6	2144.8	1.4	30.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2144.6	2144.8	.2	30.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2144.6	2144.8	1.5	39.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2144.6	2144.8	3.2	49.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2144.6	2145.0	1.2	22.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	2203.0	2237.0	55.0	6.0	3.0		RAIN
	2000	TYKW	20	GRF	2220.0	2230.0	35.0	2.0	1.0		
	2000	TYKW	21	GRF	2300.0	0200.0	390.0	2.0	1.0		
	2000	TYKW	45	C	2309.0	2310.0	3.0	23.0	3.0		
	1415	SGMR	47	GB	2309.8	2310.0	1.0	130.0			QL=4 ST=2 TYP=5
	9400	TYKW	5	S	2310.0U	2310.5	6.0U	60.0U	14.0U		RAIN
	3750	TYKW	5	S	2310.0	2310.7	9.0	9.0	3.0		
	3750	TYKW	28	PRE	2310.0	2347.0	41.0	21.0	6.0		
	8800	SGMR	47	GB	2310.0	2310.3	1.8	77.0			QL=4 ST=2 TYP=5
	4995	PALE	4	S/F	2310.0	2310.5	3.8	33.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2310.0	2310.6	1.1	31.0			QL=4 ST=2 TYP=3
	2695	PENT	240	R	2310.0	2345.0	35.0	10.0	4.0		
	15400	PALE	4	S/F	2310.1	2310.5	2.4	38.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2313.0	2315.1	4.0	49.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2325.8	2326.8	1.3	25.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	2326.0	2328.0	13.0	23.0	10.0		RAIN
	8800	PALE	4	S/F	2326.8	2328.0	5.2	27.0			QL=6 ST=2 TYP=3
	9400	TYKW	28	PRE	2343.0	2351.5	8.5	10.0	5.0		RAIN
	2000	TYKW	45	C	2345.0	2354.7	15.0	38.0	11.0		
	2000	TYKW	45	C	2346.0	2354.8	14.0	26.0	7.0		
	208	VORO	4	S/F	2347.0	2350.0	7.0	200.0D			
	3750	TYKW	47	GB	2351.0	2354.5	9.0	630.0	70.0		
	2695	PENT	46F	C	2351.5	2354.3	5.5	170.0	48.0		
	9400	TYKW	45	C	2351.5	2354.5	7.5	400.0	120.0		
	245	SGMR	4	S/F	2351.6	2352.8	4.0D	500.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	2351.6	2353.6	5.0	1400.0	130.0		ML

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	245	LEAR	47	GB	2351.6	2353.8	7.2	390.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	2351.6	2354.5	5.5	160.0			QL=6 ST=2 TYP=5
	100	HIRA	46	C	2351.8	2353.6	4.0	6000.0	566.0		0
	500	HIRA	45	C	2351.8	2354.5	7.0	60.0	25.0		WLWR
	4995	LEAR	47	GB	2351.8	2354.5	5.8	340.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	2351.8	2354.5	8.5	420.0			QL=6 ST=2 TYP=5
	35000	NAGO	20	GRF	2352.0	2355.0	8.0	25.0			
	17000	NOBE	7	C	2352.2	2354.8	13.5	149.0			R
	15400	LEAR	47	GB	2352.3	2354.6	7.5	130.0			QL=6 ST=2 TYP=5
	610	LEAR	4	S/F	2353.1	2353.6	4.7	49.0			QL=6 ST=2 TYP=3
	410	LEAR	49	GB	2353.5	2355.5	4.3	530.0			QL=6 ST=2 TYP=6
	1415	LEAR	8	S	2353.8	2354.3	1.8	18.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	2354.1	2354.8	2.0D	200.0			QL=4 ST=2 TYP=5
	2695	PENT	29	PBI	2357.0	2357.0	28.0	9.6	3.2		
	9400	TYKW	30	PBI	2359.0		45.0	26.0	13.0		
17	200	GORK	44	NS	0257.0E		432.0D	20.0			
	100	GORK	44	NS	0257.0E		432.0D	5.0			
	204	IZMI	43	NS	0600.0		360.0	42.0			
	260	ONDR	44	NS	0810.0E		355.0D				
	245	SGMR	43	NS	0944.0	1310.1	851.0D	400.0			QL=6 ST=2 TYP=1
	29	UPIC	43	NS	1031.0	1301.1	289.5				
	33	UPIC	43	NS	1031.1		289.3				
	200	HIRA	44	NS	1930.0E	0428.0	860.0D	13.0	6.0		WR
	208	VORO	44	NS	2100.0E		360.0D		3.0		
	245	PALE	44	NS	2145.0E	2309.1		219.0			QL=6 ST=3 TYP=1
	2000	TYKW	29	PBI	0000.0		30.0	5.0	2.0		
	3750	TYKW	30	PBI	0000.0		123.0	20.0	9.0		
	8800	LEAR	47	GB	0000.8	0001.6	4.5	63.0			QL=6 ST=2 TYP=5
	4995	LEAR	8	S	0000.8	0001.8	1.5	24.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	0001.0	0001.7	12.0	51.0	25.0D		
	3750	TYKW	5	S	0001.0	0001.7	5.0	10.0	2.0		
	245	LEAR	8	S	0001.0	0001.3	1.0	45.0			QL=6 ST=2 TYP=3
	245	PALE	20	GRF	0001.3	0001.3	1.5	54.0			QL=6 ST=2 TYP=2
	8800	PALE	47	GB	0001.3	0001.6	11.0	100.0			QL=6 ST=2 TYP=5
	4995	PALE	20	GRF	0001.3	0001.8	2.0	31.0			QL=6 ST=2 TYP=2
	15400	PALE	4	S/F	0001.6	0001.6	10.7	23.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0008.0	0009.5	4.0	3.0	1.0		
	200	HIRA	41	F	0008.8	0009.7	42.0	480.0			SL
	245	LEAR	47	GB	0009.1	0009.3	2.2	110.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0009.1	0009.3	.4	37.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0009.1	0009.3	1.5	43.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	0013.0		16.0	16.0	7.0		
	9400	TYKW	5	S	0053.0	0058.0	15.0	3.0	1.5		
	9395	PEKG	20	GRF	0104.0	0120.7	18.0	10.2	4.6		
	2840	PEKG	28	PRE	0109.0	0118.8	54.0	16.0	8.2		
	9400	TYKW	5	S	0119.0	0120.3	6.0	7.0	2.0		
	200	HIRA	46	C	0119.3	0119.6	2.7	250.0	60.0		ML
	9395	PEKG	3	S	0132.0	0135.3	14.0	22.0	10.3		
	9400	TYKW	5	S	0134.0	0135.1	5.0	11.0	3.0		
	8800	LEAR	4	S/F	0134.3	0135.1	3.5	13.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0141.8	0143.6	2.3	460.0			QL=6 ST=2 TYP=5
	500	HIRA	46	C	0141.9	0143.4	2.0	7.0	3.0		0
	410	LEAR	4	S/F	0142.0	0143.6	2.1	22.0			QL=6 ST=2 TYP=3
	9395	PEKG	28	PRE	0146.0	0148.6	16.0	27.0	9.2		
	3750	TYKW	5	S	0147.0	0148.0	4.0	2.0	1.0		
	9400	TYKW	45	C	0147.0	0148.4	4.0	21.0	14.0		
	9400	TYKW	28	PRE	0147.0	0202.0	15.0	6.0	3.0		
	8800	LEAR	20	GRF	0147.1	0148.3	4.5	31.0			QL=6 ST=2 TYP=2
	4995	LEAR	20	GRF	0147.3	0148.5	4.3	20.0			QL=6 ST=2 TYP=2
	15400	LEAR	20	GRF	0147.3	0148.6	2.5	9.0			QL=6 ST=2 TYP=2
	9400	TYKW	29	PBI	0151.0		6.0	10.0	5.0		
	100	HIRA	42	SER	0155.1	0215.2	20.3	210.0			WL
	200	HIRA	46	C	0157.8	0200.0	11.0	130.0	19.0		ML
	9400	TYKW	5	S	0159.0	0159.7	1.5	4.0	1.5		
	208	VORO	4	S/F	0159.0	0201.0	3.0	143.0			
	2930	VORO	3	S	0200.0	0208.0	8.0	725.0			
	9400	TYKW	47	GB	0202.0	0206.0	7.0	2240.0	660.0		
	9395	PEKG	47	GB	0202.0	0205.9	13.0	2149.0			
	8800	LEAR	49	GB	0202.6	0202.8	21.9	11.0			QL=6 ST=2 TYP=7

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	2000	TYKW	47	GB	0203.0	0206.1	37.0	620.0	105.0		
	3750	TYKW	47	GB	0203.0	0206.1	27.0	830.0	130.0		
	1000	TYKW	45	C	0203.0	0206.2	37.0	298.0	80.0		
	35000	NAGO	5	S	0203.0	0205.0	4.0	240.0			
	2840	PEKG	47	GB	0203.0	0206.1	22.0	757.0			
	4995	LEAR	49	GB	0203.1	0205.8	21.4	1199.0			QL=6 ST=2 TYP=7
	500	HIRA	45	C	0203.3	0204.6	20.0	4000.0	300.0		SL
	15400	PALE	49	GB	0203.3	0205.8	15.3	1899.0			QL=6 ST=2 TYP=7
	15400	LEAR	49	GB	0203.3	0205.8	21.2	1399.0			QL=6 ST=2 TYP=7
	8800	PALE	49	GB	0203.5	0205.8	10.6	2600.0			QL=6 ST=2 TYP=7
	17000	NOBE	47	GB	0203.5	0205.9	5.0	1370.0			R
	610	LEAR	49	GB	0203.6	0204.1	20.9	139.0			QL=6 ST=2 TYP=7
	1415	LEAR	49	GB	0203.6	0206.0	20.9	480.0			QL=6 ST=2 TYP=7
	2695	PALE	49	GB	0203.6	0206.0	15.0	620.0			QL=6 ST=2 TYP=7
	4995	PALE	49	GB	0203.6	0206.0	15.0	1199.0			QL=6 ST=2 TYP=7
	2695	LEAR	49	GB	0203.6	0206.0	20.9	740.0			QL=6 ST=2 TYP=7
	1415	PALE	49	GB	0203.6	0206.0	15.0	570.0			QL=6 ST=2 TYP=7
	410	LEAR	49	GB	0204.0	0204.1	10.0	189.0			QL=6 ST=2 TYP=7
	610	PALE	49	GB	0204.0	0204.1	14.6	130.0			QL=6 ST=2 TYP=7
	4995	MANI	49	GB	0204.0	0206.5	18.0	2000.0			QL=6 ST=3 TYP=6
	8800	MANI	49	GB	0204.0	0206.5	16.0	2899.0			QL=6 ST=3 TYP=6
	1415	MANI	49	GB	0204.0	0206.5	22.0	810.0			QL=6 ST=3 TYP=6
	2695	MANI	49	GB	0204.0	0206.5	27.5	4100.0			QL=6 ST=3 TYP=6
	610	MANI	20	GRF	0204.0	0209.1	5.1D	160.0			QL=6 ST=3 TYP=2
	245	LEAR	49	GB	0204.1	0204.5	1.0	8300.0			QL=6 ST=2 TYP=7
	245	PALE	49	GB	0204.1	0204.5	2.0	8000.0			QL=6 ST=2 TYP=7
	410	PALE	49	GB	0204.3	0204.3	1.5	130.0			QL=6 ST=2 TYP=7
	35000	NAGO	29	PBI	0208.0	0208.0	72.0	30.0			
	9400	TYKW	29	PBI	0209.0		80.0	63.0	18.0		
	9395	PEKG	29	PBI	0215.0		65.0	66.0	29.0		
	2840	PEKG	29	PBI	0225.0		74.0	47.0	19.2		
	3750	TYKW	30	PBI	0230.0		200.0	26.0	7.0		
	1000	TYKW	29	PBI	0240.0		40.0	9.0	3.0		
	2000	TYKW	30	PBI	0240.0		185.0	10.0	3.0		
	2000	TYKW	5	S	0256.0	0258.0	6.0	1.5	.7		
	200	HIRA	46	C	0313.8	0315.6	2.6	125.0	50.0		ML
	3750	TYKW	20	GRF	0318.0	0420.0	150.0	3.0	1.5		
	1000	TYKW	20	GRF	0325.0	0340.0	55.0	1.0	.5		
	9100	GORK	21	GRF	0330.0E		390.0D				
	2950	GORK	21	GRF	0337.0E	0729.0	383.0D	24.0			
	100	HIRA	46	C	0338.0	0338.4	1.2	140.0	78.0		SL
	2000	TYKW	20	GRF	0340.0	0350.0	40.0	2.0	1.0		
	9400	TYKW	21	GRF	0345.0	0405.0	60.0	7.0	3.0		
	9395	PEKG	20	GRF	0345.0	0405.0	41.0	11.7	3.2		
	9400	TYKW	5	S	0352.0	0352.6	1.5	4.0	1.5		
	9400	TYKW	5	S	0411.0	0414.0	10.0	3.0	1.5		
	9400	TYKW	5	S	0438.0	0438.2	2.0	6.0	1.5		
	9100	GORK	1	S	0438.0	0438.2	.4	11.0	5.0		
	2000	TYKW	20	GRF	0445.0	0500.0	55.0	2.0	1.0		
	200	HIRA	46	C	0453.7	0455.8	2.4	82.0	31.0		ML
	9100	GORK	1	S	0457.9	0458.3	.8	10.0	5.0		
	9400	TYKW	45	C	0458.0	0458.4	3.0	11.0	5.0		
	9400	TYKW	29	PBI	0500.0		9.0	5.0	2.5		
	9400	TYKW	20	GRF	0530.0	0538.0	30.0	4.0	2.0		
	1000	TYKW	45	C	0533.5	0534.0	4.0	16.0	3.0		
	610	LEAR	8	S	0535.3	0535.6	.5	18.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0535.3	0535.6	1.5	78.0			QL=6 ST=2 TYP=5
	2000	TYKW	21	GRF	0556.0	0710.0	180.0	10.0	6.0		
	2840	PEKG	22	GRF	0556.0	0620.3	50.0D	18.6	6.3		
	3750	TYKW	20	GRF	0557.0	0710.0	180.0	14.0	7.0U		INTERFERENCE
	1000	TYKW	21	GRF	0603.0E	0715.0	170.0D	6.0	3.0D		INTERFERENCE
	9395	PEKG	20	GRF	0603.0	0625.3	56.0	13.9	2.9		
	9400	TYKW	21	GRF	0607.0E	0720.0	190.0D	18.0	9.0D		RAIN
	234	POTS	4	S/F	0637.9	0637.9	.3	275.0	30.0		
	200	HIRA	46	C	0658.3	0658.7	1.0	400.0	90.0		ML
	100	HIRA	46	C	0658.3	0658.8	1.3	250.0	134.0		SL
	100	GORK	8	S	0658.3	0658.8	1.6	80.0D			
	15000	KISV	21	GRF	0706.0	0710.7	14.0D	23.0			
	6100	KISV	21	GRF	0706.0	0710.6	15.0D	13.0			
	9395	PEKG	5	S	0707.0	0710.5	40.0	31.0	15.2		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	9500	POTS	21	GRF	0707.5	0710.5	38.0	23.0			
	9400	TYKW	5	S	0709.0	0710.6	6.0	25.0	7.0		
	15400	LEAR	4	S/F	0709.6	0710.8	4.2	16.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0709.6	0711.1	4.0	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0709.6	0711.1	5.0	18.0			QL=6 ST=2 TYP=3
	9100	GORK	1	S	0709.8	0710.6	2.1	28.0	14.0		
	2950	GORK	2	S/F	0709.8	0712.7	5.5	5.1			
	2000	TYKW	20	GRF	0725.0	0740.0	70.0	4.0	2.0		
	1000	TYKW	45	C	0739.0	0739.4	2.0	12.0	2.5		
	9395	PEKG	20	GRF	0751.0	0755.7	11.0	5.4	1.9		
	1000	TYKW	5	S	0848.2	0848.4	.5	7.0	2.5		
	200	HIRA	42	SER	0903.3	0904.8	13.0	120.0			ML
	100	HIRA	42	SER	0904.6	0911.1	8.6	150.0			0
	245	SGMR	8	S	1004.8	1006.1	2.0	3300.0			QL=6 ST=2 TYP=3
	1415	ATHN	47	GB	1005.0	1005.8	1.3	64.0			QL=6 ST=2 TYP=5
	2695	ATHN	8	S	1005.0	1005.8	1.3	7.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	1005.0	1005.8	1.3	15.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1005.0	1005.8	1.3	28.0			QL=6 ST=2 TYP=3
	1470	POTS	4	S/F	1005.7	1006.2	2.8	37.0			
	410	SGMR	49	GB	1005.8	1006.1	.5	2100.0			QL=6 ST=2 TYP=6
	234	POTS	4	S/F	1005.8	1006.1	1.9	1300.0	20.0		III
	15000	KISV	2	S/F	1005.8	1006.2	2.0	44.0			
	650	GORK	4	S/F	1005.8	1006.6	1.1	55.0			
	650	GORK	29	PBI	1005.8	1006.9	3.5D	3.0			
	950	GORK	4	S/F	1005.9	1006.4	2.9	100.0			
	9500	POTS	3	S	1006.0	1006.2	3.0	19.0			
	930	BORD	46	C	1006.0	1006.4	3.0	215.0	20.0		
	3000	POTS	3	S	1006.0	1006.5	1.0	7.0			
	808	ONDR	2	S/F	1006.4	1006.8	4.0	82.0			
	6100	KISV	28	PRE	1025.0	1030.5	5.5	16.0			
	9500	POTS	45	C	1025.0	1033.6	45.0	1055.0			
	3000	POTS	45	C	1025.0	1034.0	60.0	2240.0D			
	4995	ATHN	49	GB	1029.3	1033.6	74.0	1800.0			QL=6 ST=2 TYP=6
	8800	ATHN	49	GB	1030.0	1033.6	73.3	1899.0			QL=6 ST=2 TYP=6
	4995	SGMR	49	GB	1030.1	1033.6	25.0	1399.0			QL=6 ST=2 TYP=6
	2695	ATHN	49	GB	1030.1	1034.1	66.0	1000.0			QL=6 ST=2 TYP=6
	15000	KISV	47	GB	1030.5	1033.6	6.5	1905.0			
	6100	KISV	47	GB	1030.5	1033.7	9.5	810.0			
	15000	KISV			1030.5	1034.3		1845.0			
	6100	KISV			1030.5	1037.3		254.0			
	1470	POTS	46	C	1031.0	1035.5	74.0	330.0			
	8800	SGMR	49	GB	1031.3	1033.6	23.8	1300.0			QL=6 ST=2 TYP=6
	15400	SGMR	49	GB	1031.5	1034.5	23.6	1300.0			QL=6 ST=2 TYP=6
	1415	ATHN	47	GB	1031.5	1035.1	64.6	370.0			QL=6 ST=2 TYP=5
	2695	SGMR	49	GB	1031.6	1034.6	23.5	1199.0			QL=6 ST=2 TYP=6
	930	BORD	46	C	1031.7	1033.6	42.3	165.0	17.0		
	610	SGMR	47	GB	1032.5	1033.3	22.6	300.0			QL=6 ST=2 TYP=5
	1415	SGMR	49	GB	1032.5	1034.6	22.6	430.0			QL=6 ST=2 TYP=6
	410	SGMR	47	GB	1032.5	1037.0	8.3	300.0			QL=6 ST=2 TYP=5
	536	ONDR	42	SER	1032.7	1032.9	11.8	44.0	29.0		
	808	ONDR	27	RF	1032.7	1037.0	34.0	68.0	36.0		
	204	IZMI	42	SER	1035.0	1036.5	60.0	540.0			
	234	POTS	4	S/F	1035.4	1037.1	3.3	1900.0	50.0		III
	245	SGMR	49	GB	1035.6	1037.3	5.2	4400.0			QL=6 ST=2 TYP=6
	15000	KISV	29	PBI	1037.0	1037.0	25.0	485.0			
	6100	KISV	29	PBI	1040.0	1040.0	60.0U	127.0			
	2650	DWIN	49	GB	1040.0	1045.0U	30.0	400.0U			
	6100	KISV	21	GRF	1049.0	1052.2	10.0	22.0			
	4995	SGMR	47	GB	1055.1	1055.1	9.7	97.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1055.1	1055.1	9.7	36.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1055.1	1055.3	9.7	89.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1055.1	1055.3	9.7	57.0			QL=6 ST=2 TYP=5
	1415	SGMR	20	GRF	1055.1	1055.3	9.7	49.0			QL=6 ST=2 TYP=2
	610	SGMR	20	GRF	1055.1	1055.6	9.7	50.0			QL=6 ST=2 TYP=2
	245	SGMR	4	S/F	1055.1	1055.6	9.7	40.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1055.8	1056.0	.2	34.0			QL=6 ST=2 TYP=3
	2800	OTTA			1057.0E		33.0D	17.2			
	4995	SGMR	47	GB	1104.8	1105.6	10.7	62.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1104.8	1105.6	10.7	62.0			QL=6 ST=2 TYP=5
	1415	SGMR	20	GRF	1104.8	1107.5	10.7	40.0			QL=6 ST=2 TYP=2

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	2695	SGMR	4	S/F	1105.0	1107.5	10.5	39.0			QL=6 ST=2 TYP=3
	610	SGMR	4	S/F	1105.6	1106.6	3.4	21.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1106.6	1107.3	8.9	50.0			QL=6 ST=2 TYP=5
	234	POTS	42	SER	1110.0	1110.6	15.0	330.0			
	15400	SGMR	47	GB	1111.1	1112.1	4.4	82.0			QL=6 ST=2 TYP=5
	8800	SGMR	20	GRF	1115.5	1115.6	6.6	41.0			QL=6 ST=2 TYP=2
	4995	SGMR	20	GRF	1115.5	1116.1	6.6	49.0			QL=6 ST=2 TYP=2
	15400	SGMR	47	GB	1115.5	1116.3	6.6	79.0			QL=6 ST=2 TYP=5
	1415	SGMR	20	GRF	1115.5	1116.8	6.6	33.0			QL=6 ST=2 TYP=2
	2695	SGMR	20	GRF	1115.5	1117.1	11.0	44.0			QL=6 ST=2 TYP=2
	610	SGMR	4	S/F	1116.0	1116.3	10.5	21.0			QL=6 ST=2 TYP=3
	2800	OTTA	1	S	1137.0	1138.0	2.0	5.4	2.7		
	113	POTS	8	S	1203.8	1203.8	.2	425.0	140.0		III
	536	ONDR	42	SER	1210.6	1212.0U	18.0	10.0			
	245	SGMR	49	GB	1212.6	1214.5	7.0	210.0			QL=6 ST=2 TYP=6
	234	POTS	42	SER	1212.7	1217.0	4.5	1600.0	12.0		
	410	SGMR	47	GB	1214.6	1214.8	2.9	270.0			QL=6 ST=2 TYP=5
	234	POTS	4	S/F	1231.8	1232.2	.4	775.0	25.0		
	6100	KISV	21	GRF	1234.0	1306.7	50.0D	18.0			
	2800	OTTA	21	GRF	1240.0	1310.0	80.0	10.8	5.4		
	2650	DWIN	2	S/F	1250.0	1253.0	40.0	60.0	30.0		
	3000	POTS	23	GRF	1250.0	1253.7	70.0	56.0			
	1470	POTS	23	GRF	1250.0	1254.0	70.0	13.0			
	9500	POTS	23	GRF	1251.0	1317.5	79.0	31.0			
	2695	ATHN	47	GB	1251.5	1253.6	34.0	59.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	1251.5	1253.6	34.0	47.0			QL=6 ST=2 TYP=3
	2800	OTTA	40	F	1251.6	1253.8	29.0	56.0			
	113	POTS	4	S/F	1252.1	1252.4	.6	2000.0	100.0		III
	8800	ATHN	4	S/F	1252.3	1253.6	33.2	34.0			QL=6 ST=2 TYP=3
	9400	HUAN	2	S/F	1252.5	1253.5	2.5D	12.5	9.0		R
	9400	HUAN	21	GRF	1252.5E	1314.5	38.7D	23.3	10.8		R
	4995	SGMR	8	S	1253.3	1253.8	.8	40.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1253.3	1253.8	.5	42.0			QL=6 ST=2 TYP=3
	6100	KISV			1258.3	1258.9		11.0			
	6100	KISV	46	C	1258.3	1300.6	5.0	25.0			
	9400	HUAN	3	S	1259.4	1300.2	2.2	21.5	9.3		R
	4995	SGMR	8	S	1300.1	1300.3	.7	41.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1300.1	1300.6	.5	41.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1300.1	1300.6	.7	33.0			QL=6 ST=2 TYP=3
	9400	HUAN	1	S	1305.2	1306.6	2.8	5.4	1.1		0
	234	POTS	4	S/F	1310.2	1310.3	.5	220.0	35.0		
	9400	HUAN	2	S/F	1316.9	1317.5	2.1	12.5	5.0		R
	6100	KISV	3	S	1317.2	1317.6	2.5	16.0			
	4995	SGMR	8	S	1317.5	1317.6	.6	37.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1317.5	1317.6	.1	38.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1317.5	1317.8	.6	64.0			QL=6 ST=2 TYP=5
	808	ONDR	8	S	1323.8	1323.8	.1	12.0			
	9400	HUAN	2	S/F	1344.5	1347.5	5.7	16.1	10.2		L
	9400	HUAN	29	PBI	1350.2	1350.2	49.3	7.2	1.4		L
	234	POTS	8	S	1351.7	1351.7	.8	250.0	80.0		
	2800	OTTA	260	FAL	1410.0	1600.0	110.0	-17.0	-10.0		
	9400	HUAN	21	GRF	1508.3	1527.5	39.2	16.1	6.9		0
	9400	HUAN	2	S/F	1521.4	1524.1	4.0	14.3	4.9		0
	2800	OTTA	21	GRF	1630.0	1755.0	100.0	6.2	3.1		
	9400	HUAN	2	S/F	1713.1	1715.5	3.0	9.0	4.2		0
	2800	OTTA	3	S	1713.5	1714.5	2.5	11.2	5.0		
	410	SGMR	8	S	1723.8	1724.0	.3	30.0			QL=6 ST=2 TYP=3
	9400	HUAN	20	GRF	1743.6	1800.7	22.2	5.4	3.6		0
	2800	OTTA	1	S	1825.5	1826.2	8.5	7.0	3.0		
	610	SGMR	47	GB	1825.8	1826.1	.5	72.0			QL=6 ST=2 TYP=5
	9400	HUAN	20	GRF	1826.1	1837.6	21.0	6.3	3.0		0
	410	SGMR	8	S	1929.8	1929.8	.2	32.0			QL=6 ST=2 TYP=3
	100	HIRA	42	SER	1939.0	2008.3	45.0	370.0			ML
	2800	OTTA	20	GRF	1950.0	2000.0	75.0	5.6	2.8		
	200	HIRA	41	F	1950.0	2008.2	32.0	320.0			ML
	245	SGMR	47	GB	1951.0	1951.6	1.8	230.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1951.1	1951.8	.7	78.0			QL=6 ST=2 TYP=5
	1000	TYKW	45	C	2055.5	2055.6	.5	34.0	6.0		
	3750	TYKW	21	GRF	2120.0	0010.0	380.0	15.0	8.0		
	2000	TYKW	21	GRF	2120.0	2400.0	370.0	8.0	4.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	1000	TYKW	21	GRF	2120.0	2400.0	370.0	2.0	1.0		
	3750	TYKW	5	S	2124.0	2124.5	1.5	30.0	5.0		
	200	HIRA	46	C	2124.1	2124.2	1.7	2300.0	665.0		0
	100	HIRA	46	C	2124.1	2124.2	2.0	3000.0	660.0		ML
	245	SGMR	8	S	2124.3	2124.5	1.0	1000.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	2124.3	2124.6	.8	53.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	2124.4	2124.6	1.0	11.0	4.0		
	208	VORO	42	SER	2133.0	2134.0	12.0	200.0D			
	200	HIRA	42	SER	2135.8	2147.5	12.3	3800.0			WR
	9400	TYKW	5	S	2136.0	2136.5	.7	16.0	4.0		
	245	SGMR	49	GB	2136.1	2138.1	2.4	1300.0			QL=6 ST=2 TYP=6
	410	SGMR	47	GB	2136.1	2138.1	2.4	440.0			QL=6 ST=2 TYP=5
	610	SGMR	49	GB	2136.1	2138.1	2.4	1000.0			QL=6 ST=2 TYP=6
	9400	TYKW	5	S	2137.8	2138.2	1.0	15.0	4.0		
	1000	TYKW	45	C	2138.0	2138.3	1.0	69.0	17.0		
	15400	SGMR	8	S	2138.1	2138.1	.4	32.0			QL=6 ST=2 TYP=3
	100	HIRA	42	SER	2138.1	2138.2	10.0	3400.0			WR
	17000	NOBE	1	S	2138.1	2138.3	1.0	40.0			0
	9400	TYKW	5	S	2145.5	2146.0	1.5	7.0	3.0		
	410	SGMR	49	GB	2147.0	2147.6	1.0	510.0			QL=6 ST=2 TYP=6
	410	PALE	49	GB	2147.1	2147.6	1.9	870.0			QL=6 ST=2 TYP=6
	9400	TYKW	5	S	2147.4	2147.7	1.0	13.0	4.0		
	1000	TYKW	45	C	2147.5	2148.0	1.5	50.0	10.0		
	610	SGMR	47	GB	2147.6	2147.6	.4	94.0			QL=6 ST=2 TYP=5
	245	PALE	49	GB	2147.6	2147.8	1.4	2000.0			QL=6 ST=2 TYP=6
	245	SGMR	49	GB	2147.6	2147.8	.5	1800.0			QL=6 ST=2 TYP=6
	610	PALE	47	GB	2147.6	2147.8	1.2	100.0			QL=6 ST=2 TYP=5
	15400	PALE	8	S	2147.6	2148.0	1.4	22.0			QL=6 ST=2 TYP=3
	17000	NOBE	1	S	2147.7	2147.8	.5	25.0			0
	610	PALE	8	S	2201.3	2201.5	1.2	40.0			QL=6 ST=2 TYP=3
	9400	TYKW	21	GRF	2235.0	0010.0	240.0	8.0	4.0		
	3750	TYKW	28	PRE	2259.0	2309.0	10.0	5.0	2.5		
	1000	TYKW	28	PRE	2302.0	2310.0	8.0	2.0	1.0		
	100	HIRA	46	C	2307.0		24.0	10000.0D	760.0D		
	208	VORO	48	C	2307.0	2315.0U	26.0	200.0D			
	200	HIRA	46	C	2307.5	2316.1	26.0	1200.0	149.0		MR
	2000	TYKW	47	GB	2308.0	2315.8	23.0	524.0	60.0		
	2695	PENT	47	GB	2308.5	2316.0	25.5	785.0	88.0		
	3750	TYKW	47	GB	2309.0	2315.8	35.0	670.0	80.0		
	610	PALE	49	GB	2309.1	2312.0	15.0	69.0			QL=6 ST=2 TYP=7
	2695	PALE	49	GB	2309.6	2311.0	14.5	88.0			QL=6 ST=2 TYP=7
	9400	TYKW	47	GB	2310.0	2315.5	30.0	790.0	100.0		
	1000	TYKW	45	C	2310.0	2315.9	21.0	411.0	55.0		
	4995	PALE	49	GB	2310.0	2311.0	14.1	90.0			QL=6 ST=2 TYP=7
	4995	MANI	49	GB	2310.0	2315.6	18.0	1000.0			QL=6 ST=2 TYP=6
	8800	MANI	49	GB	2310.0	2316.1	18.0	1000.0			QL=6 ST=2 TYP=6
	2695	MANI	49	GB	2310.0	2316.3	22.0	750.0			QL=6 ST=2 TYP=6
	610	MANI	49	GB	2310.0	2316.8	21.0	600.0			QL=6 ST=2 TYP=6
	245	PALE	49	GB	2310.1	2310.3	14.0	770.0			QL=6 ST=2 TYP=7
	410	PALE	49	GB	2310.1	2311.8	14.0	91.0			QL=6 ST=2 TYP=7
	8800	PALE	49	GB	2310.3	2311.0	13.8	43.0			QL=6 ST=2 TYP=7
	1415	PALE	49	GB	2310.3	2311.1	2.5	33.0			QL=6 ST=2 TYP=7
	1415	MANI	47	GB	2310.3	2316.5	15.7	290.0			QL=6 ST=2 TYP=5
	15400	PALE	49	GB	2314.1	2315.5	10.0	500.0			QL=6 ST=2 TYP=7
	17000	NOBE	45	C	2314.5	2315.4	20.0	290.0			R
	35000	NAGO	5	S	2315.0	2315.0	1.0	85.0			
	35000	NAGO	29	PBI	2317.0	2323.0	15.0	40.0			
	610	LEAR	47	GB	2320.0E	2320.6	4.1D	52.0			QL=5 ST=3 TYP=5
	1415	LEAR	8	S	2320.0E	2320.6	1.8D	16.0			QL=5 ST=3 TYP=3
	2695	LEAR	47	GB	2320.0E	2322.0	10.6D	33.0			QL=5 ST=3 TYP=5
	8800	LEAR	47	GB	2320.0E	2322.0	10.6D	89.0			QL=5 ST=3 TYP=5
	245	LEAR	49	GB	2320.0E	2322.1	10.6D	160.0			QL=5 ST=3 TYP=6
	410	LEAR	47	GB	2320.0E	2322.1	10.6D	400.0			QL=5 ST=3 TYP=5
	4995	LEAR	47	GB	2320.0E	2322.1	10.6D	78.0			QL=5 ST=3 TYP=5
	1000	TYKW	29	PBI	2331.0		15.0	4.0	1.5		
	2000	TYKW	29	PBI	2331.0		25.0	8.0	3.0		
	2695	PENT	29	PBI	2334.0	2334.0	30.0	12.0	5.0		
	9400	TYKW	30	PBI	2340.0		15.0	13.0	4.0		
	410	SGMR	47	GB	2343.8	2344.3	1.7	380.0			QL=6 ST=2 TYP=5
	3750	TYKW	30	PBI	2344.0		35.0	16.0	5.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	2840	PEKG	21	GRF	2344.0	0111.0	141.0	22.9	9.2		
	410	LEAR	47	GB	2344.0	2344.3	1.6	440.0			QL=6 ST=2 TYP=5
	410	PALE	49	GB	2344.0	2344.3	6.3	720.0			QL=6 ST=2 TYP=6
	610	PALE	47	GB	2344.1	2344.3	1.2	62.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	2344.3	2344.3	.2	66.0			QL=6 ST=2 TYP=5
	3750	TYKW	5	S	2345.0	2349.0	9.0	2.0	1.0		
	9400	TYKW	5	S	2348.0	2350.0	5.0	3.0	1.0		
	2930	VORO	45	C	2350.0	2353.0	3.0	151.0			
18	200	GORK	44	NS	0300.0E		427.0D		10.0		
	33	UPIC	43	NS	0514.3		795.7D				
	29	UPIC	43	NS	0514.6		795.4D				
	260	ONDR	44	NS	0613.0E	1257.0U	411.0D				
	208	VORO	44	NS	2100.0E		360.0D				
	9395	PEKG	20	GRF	0022.0	0052.2	77.0	19.4	9.2		
	1000	TYKW	30	PBI	0027.0		30.0	2.0	1.0		
	2000	TYKW	21	GRF	0040.0	0100.0	55.0	3.0	1.5		
	3750	TYKW	21	GRF	0040.0	0116.0	120.0	9.0	4.0		
	9400	TYKW	45	C	0044.0	0051.9	10.0	17.0	5.0		
	1000	TYKW	5	S	0045.0	0052.2	12.0	5.0	1.5		
	3750	TYKW	5	S	0050.0	0051.8	5.0	18.0	6.0		
	2695	PENT	3	S	0050.0	0051.0	4.0	12.6	6.0		
	2000	TYKW	5	S	0050.5	0052.0	6.0	8.0	2.5		
	2840	PEKG	5	S	0051.0	0051.8	3.0	14.6	6.8		
	4995	PALE	4	S/F	0051.3	0051.8	2.3	30.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0051.5	0051.8	1.8	27.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0051.6	0051.8	1.7	19.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0051.6	0051.8	1.0	13.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	0054.0		26.0	8.0	3.0		
	1000	TYKW	5	S	0106.0	0106.6	1.0	2.0	.5		
	1000	TYKW	5	S	0120.4	0120.8	1.0	1.0	.3		
	9400	TYKW	21	GRF	0133.0	0210.0	60.0	4.0	2.0		
	9395	PEKG	20	GRF	0142.0	0158.8	52.0	22.4	9.0		
	3750	TYKW	5	S	0146.0	0148.0	6.0	2.0	1.0		
	3750	TYKW	45	C	0153.0	0158.4	12.0	14.0	4.0		
	9400	TYKW	5	S	0156.0	0158.6	9.0	15.0	6.0		
	8800	LEAR	4	S/F	0157.5	0158.6	5.3	24.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0157.6	0158.6	3.7	18.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0157.8	0158.6	4.8	16.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0243.0	0244.0	7.0	4.0	1.5		
	1000	TYKW	5	S	0244.0	0244.7	1.5	1.5	.5		
	200	GORK	4	S/F	0316.2	0317.2	2.5	130.0D			
	650	GORK	1	S	0318.2	0319.5	1.3	3.0	1.5		
	410	PALE	47	GB	0318.3	0319.8	1.8	84.0			QL=6 ST=2 TYP=5
	245	PALE	49	GB	0318.5	0319.3	1.5	1500.0			QL=6 ST=2 TYP=6
	100	HIRA	46	C	0318.8	0319.2	1.2	9000.0	2400.0		WL
	1000	TYKW	5	S	0319.0	0319.4	2.0	3.0	.7		
	9400	TYKW	45	C	0319.0	0321.7	5.0	9.0	3.0		
	200	HIRA	46	C	0319.0	0319.2	1.2	1780.0	179.0		MR
	100	GORK	8	S	0319.0	0319.7U	1.7	80.0D			
	245	LEAR	49	GB	0319.1	0319.3	.9	2000.0			QL=6 ST=2 TYP=6
	410	LEAR	47	GB	0319.6	0319.8	.2	67.0			QL=6 ST=2 TYP=5
	3750	TYKW	5	S	0320.5	0322.0	8.0	4.0	1.5		
	4995	LEAR	4	S/F	0321.0	0321.6	2.8	13.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	0324.0		15.0	4.0	2.0		
	2950	GORK	23	GRF	0327.0E	0427.1	344.0D	22.0			
	9400	TYKW	21	GRF	0349.0	0439.0	110.0	8.0	4.0		
	3750	TYKW	20	GRF	0355.0	0430.0	90.0	4.0	2.0		
	9400	TYKW	5	S	0402.0	0403.0	8.0	10.0	3.0		
	8800	LEAR	4	S/F	0402.6	0403.1	2.4	16.0			QL=6 ST=2 TYP=3
	9100	GORK	1	S	0402.6	0403.6	1.9	14.0	7.0		
	9395	PEKG	21	GRF	0413.0	0440.0	75.0	7.8	3.2		
	2840	PEKG	20	GRF	0413.0	0442.5	63.0	10.4	4.6		
	9400	TYKW	45	C	0504.0	0511.7	20.0	12.0	2.5		
	9100	GORK	2	S/F	0511.3	0511.6	7.0	14.0	7.0		
	9395	PEKG	5	S	0514.0	0514.4	2.0	32.7	8.5		
	2840	PEKG	21	GRF	0531.0	0809.0	163.0D	28.4	10.2		
	3750	TYKW	21	GRF	0535.0	0645.0	120.0	8.0	4.0		
	2000	TYKW	21	GRF	0540.0	0610.0	100.0	3.0	1.5		
	950	GORK	8	S	0540.4	0540.5	.3	25.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	1000	TYKW	8	S	0540.5	0540.6	.4	10.0	2.0		
	245	LEAR	49	GB	0543.6	0545.8	2.7	3300.0			QL=6 ST=2 TYP=6
	410	LEAR	49	GB	0543.6	0546.1	2.7	650.0			QL=6 ST=2 TYP=6
	610	LEAR	47	GB	0543.6	0546.1	2.7	380.0			QL=6 ST=2 TYP=5
	500	HIRA	8	S	0545.7	0545.7	.4	5000.0			WL
	1000	TYKW	45	C	0545.7	0545.9	1.0	155.0	10.0		
	950	GORK	8	S	0545.7	0545.9	.8	120.0			
	650	GORK	8	S	0545.8	0546.0	.4	208.0			
	245	LEAR	49	GB	0556.6	0557.6	1.7	23000.0			QL=6 ST=2 TYP=6
	500	HIRA	45	C	0556.7	0557.3	2.0	600.0	90.0		WL
	650	GORK	46	C	0556.8	0556.8	2.5	40.0			
	410	LEAR	49	GB	0556.8	0557.6	2.0	1000.0			QL=6 ST=2 TYP=6
	650	GORK			0556.8	0557.7		33.0			
	610	LEAR	8	S	0556.8	0557.8	2.0	26.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0556.9	0557.0	.5	7.0	1.5		
	9100	GORK	1	S	0557.1	0557.9	1.3	10.0	5.0		
	9400	TYKW	5	S	0557.5	0557.8	1.5	6.0	2.0		
	2000	TYKW	5	S	0557.5	0558.0	1.5	4.0	1.5		
	1000	TYKW	5	S	0557.6	0557.9	2.0	22.0	3.0		
	1415	LEAR	8	S	0557.6	0558.0	1.2	25.0			QL=6 ST=2 TYP=3
	950	GORK	2	S/F	0557.6	0558.1	1.2	15.0			
	15400	LEAR	8	S	0557.8	0557.8	.5	19.0			QL=6 ST=2 TYP=3
	9395	PEKG	21	GRF	0602.0	0815.0	166.0	13.3	3.6		
	3750	TYKW	5	S	0605.0	0605.6	2.0	25.0	6.0		
	2650	DWIN	1	S	0605.0	0605.0	1.0	12.0	6.0		
	9395	PEKG	8	S	0605.0	0605.5	2.0	11.1	3.8		
	2840	PEKG	8	S	0605.0	0605.6	2.0	12.2	3.4		
	8800	ATHN	8	S	0605.3	0605.6	1.5	11.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0605.3	0605.6	1.7	20.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0605.3	0605.6	1.5	31.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0605.3	0605.8	1.2	24.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	0605.3	0605.8	1.3	7.0			QL=6 ST=2 TYP=3
	9100	GORK	1	S	0605.4	0605.6	.9	14.0	7.0		
	6100	KISV	8	S	0605.5	0605.5	.8	13.0			
	2950	GORK	3	S	0605.5	0605.6	1.6	14.4			
	8800	LEAR	8	S	0605.5	0605.6	1.3	17.0			QL=6 ST=2 TYP=3
	2840	PEKG	5	S	0630.5	0632.0	6.5	26.4	12.1		
	1415	LEAR	4	S/F	0630.8	0632.6	4.2	15.0			QL=6 ST=2 TYP=3
	2950	GORK	4	S/F	0630.9	0632.4	3.8	22.0			
	2000	TYKW	5	S	0631.0	0632.0	6.0	16.0	5.0		
	3750	TYKW	45	C	0631.0	0632.3	9.0	25.0	6.0		
	9400	TYKW	45	C	0631.0	0633.3	7.0	11.0	3.0		
	2650	DWIN	1	S	0631.0	0632.0	3.0	25.0	10.0		
	6100	KISV	46	C	0631.0	0632.4	5.5	14.0			
	6100	KISV			0631.0	0633.5		12.0			
	6100	KISV			0631.0	0635.8		8.0			
	650	GORK	21	GRF	0631.1	0635.6	10.9	3.0			
	200	HIRA	46	C	0631.2	0632.0	3.0	384.0	47.0		WL
	950	GORK	21	GRF	0631.2	0635.6	5.4	4.0			
	100	GORK	4	S/F	0631.3	0632.3U	2.0	80.0D			
	100	HIRA	46	C	0631.3	0632.4	2.0	2300.0	820.0		WL
	2695	ATHN	4	S/F	0631.3	0632.6	2.2	17.0			QL=6 ST=3 TYP=3
	113	POTS	4	S/F	0631.3	0632.8	1.8	600.0	150.0		III
	9100	GORK	2	S/F	0631.3	0633.3	4.6	11.0	5.0		
	1000	TYKW	45	C	0631.5	0632.2	2.0	9.0	3.0		
	200	GORK	46	C	0631.5	0632.3	4.8	30.0D			
	2695	LEAR	4	S/F	0631.5	0632.3	5.5	29.0			QL=6 ST=2 TYP=3
	9395	PEKG	5	S	0631.5	0633.7	5.5	13.3	5.1		
	200	GORK			0631.5	0634.2		130.0			
	610	LEAR	8	S	0631.6	0632.1	1.5	30.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0631.6	0632.3	5.4	23.0			QL=6 ST=2 TYP=3
	650	GORK	4	S/F	0631.7	0632.0	1.0	7.0	3.5		
	950	GORK	1	S	0631.8	0632.1	.9	6.0			
	536	ONDR	2	S/F	0631.8	0632.3	8.2	9.0	4.0		
	4995	ATHN	8	S	0631.8	0632.6	1.5	21.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0632.0	0632.1	2.0	100.0			QL=6 ST=2 TYP=5
	1000	TYKW	5	S	0635.4	0635.7	.7	4.0	1.5		
	6100	KISV	29	PBI	0636.3	0636.3	7.5	5.0			
	204	IZMI	41	F	0709.0	0710.5	1.8	1600.0			
	500	HIRA	46	C	0709.0	0710.7	2.6	200.0	60.0		SR

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	245	LEAR	47	GB	0709.3	0710.3	2.2	200.0			QL=6 ST=2 TYP=5
	113	POTS	4	S/F	0709.3	0710.4	1.7	200.0	20.0		III
	100	GORK	46	C	0709.4	0709.7	1.4	50.0			
	200	GORK	8	S	0709.4	0710.0U	1.6	30.0D			
	100	GORK			0709.4	0710.3		70.0D			
	650	GORK	4	S/F	0709.4	0711.0	2.3	80.0			
	100	HIRA	46	C	0709.6	0710.3	1.1	920.0	204.0		WL
	610	LEAR	47	GB	0709.6	0711.0	2.2	139.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0709.8	0711.1	2.0	119.0			QL=6 ST=2 TYP=5
	536	ONDR	42	SER	0709.8	0711.3	8.7	124.0			
	2000	TYKW	5	S	0725.0	0728.0	18.0	3.0	1.5		
	9400	TYKW	20	GRF	0738.0	0758.0	60.0	8.0	4.0		
	6100	KISV	1	S	0740.0	0740.6	2.5	5.0			
	2000	TYKW	20	GRF	0746.0U	0751.0U	30.0U	3.0U	1.5U		INTERFERENCE
	3750	TYKW	20	GRF	0747.0	0754.0	60.0	6.0	3.0		
	410	LEAR	47	GB	0837.6	0838.0	.7	110.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0837.6	0838.1	1.0	80.0			QL=6 ST=2 TYP=5
	200	GORK	8	S	0858.5	0859.1	1.8	140.0D			
	100	HIRA	46	C	0858.9	0859.0	1.0D	2200.0	395.0		WL
	100	GORK	4	S/F	0859.0	0859.1U	1.0	70.0D			
	113	POTS	4	S/F	0859.0	0859.2	.9	700.0	150.0		III
	234	POTS	4	S/F	0859.1	0859.1	.3	150.0	30.0		III
	9395	PEKG	4	S/F	0913.0	0915.2	17.0	152.0	45.2		
	8400	BERN	3	S	0913.0	0915.3	12.0	166.0			
	9500	POTS	3	S	0913.0	0915.3	17.0	144.0			
	2840	PEKG	5	S	0913.0	0915.5	9.0	18.2	8.2		
	2950	GORK	21	GRF	0913.0	0918.9	12.4	4.0			
	2950	GORK	1	S	0913.9	0914.4	2.9	11.0			
	9100	GORK	4	S/F	0913.9	0915.3	2.5	160.0			
	9400	TYKW	45	C	0914.0	0915.3	5.0	200.0	40.0		
	3750	TYKW	45	C	0914.0	0915.7	5.0U	37.0	11.0U		
	8800	ATHN	47	GB	0914.3	0915.3	7.8	150.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	0914.3	0915.5	5.3	64.0			QL=6 ST=2 TYP=5
	6100	KISV	4	S/F	0914.3	0915.5	12.5	70.0			
	19600	BERN	3	S	0914.5	0915.3	11.0	49.0			
	11800	BERN	3	S	0914.5	0915.3	11.0	152.0			
	8800	LEAR	47	GB	0914.5	0915.3	4.8	160.0			QL=6 ST=2 TYP=5
	3000	POTS	3	S	0914.5	0915.5	10.0	15.0			
	15000	KISV	4	S/F	0914.5	0915.5	4.0	80.0			
	2695	ATHN	4	S/F	0914.8	0915.1	2.3	9.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0914.8	0915.3	1.0	43.0			QL=6 ST=2 TYP=3
	4995	LEAR	47	GB	0914.8	0915.3	1.8	59.0			QL=6 ST=2 TYP=5
	9100	GORK	29	PBI	0916.4	0916.4	12.0	57.0			
	536	ONDR	2	S/F	0923.4	0924.3	2.6	46.0			
	204	IZMI	41	F	0959.2	0959.6	2.8	2500.0			
	245	SGMR	49	GB	0959.3	0959.8	2.7	700.0			QL=6 ST=2 TYP=6
	930	BORD	41	F	0959.4	1001.8	2.6	62.0	2.0		
	410	SGMR	47	GB	0959.6	0959.8	.4	139.0			QL=6 ST=2 TYP=5
	610	SGMR	49	GB	0959.6	0959.8	.4	540.0			QL=6 ST=2 TYP=6
	536	ONDR	45	C	0959.8	1000.1	2.3	39.0			
	808	ONDR	8	S	1001.8	1001.9	.2	38.0			
	1470	POTS	3	S	1006.5	1007.1	3.5	5.5			
	3000	POTS	3	S	1006.5	1007.6	3.5	10.0			
	113	POTS	4	S/F	1018.0	1018.0	.2	150.0	30.0		
	113	POTS	4	S/F	1043.6	1043.7	.3	300.0	25.0		
	6100	KISV	2	S/F	1047.5	1048.8	2.0	6.0			
	4995	SGMR	8	S	1048.1	1048.5	.5	21.0			QL=6 ST=2 TYP=3
	245	SGMR	49	GB	1111.5	1112.6	13.3	3300.0			QL=6 ST=2 TYP=6
	245	SGMR	4	S/F	1124.8	1125.1	8.8	260.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1125.3	1126.0	7.3	31.0			QL=6 ST=2 TYP=3
	6100	KISV	21	GRF	1130.0	1143.7	75.0	19.0			
	9500	POTS	20	GRF	1135.0	1145.0	90.0	21.0			
	2800	OTTA	3	S	1141.0	1143.0	6.0	13.6	6.0		
	8800	ATHN	4	S/F	1141.1	1142.8	7.9	11.0			QL=6 ST=2 TYP=3
	3000	POTS	3	S	1141.5	1142.9	2.5	10.0			
	4995	SGMR	4	S/F	1141.5	1143.6	4.3	26.0			QL=6 ST=2 TYP=3
	15000	KISV	20	GRF	1141.5	1149.0	30.0U	16.0			
	4995	ATHN	4	S/F	1142.3	1143.0	5.7	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1142.3	1143.6	6.2	22.0			QL=6 ST=2 TYP=3
	1470	POTS	3	S	1142.4	1143.0	2.1	6.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	1415	SGMR	8	S	1142.5	1143.1	.6	20.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1147.8	1148.0	.3	21.0			QL=6 ST=2 TYP=3
	930	BORD	41	F	1300.0	1301.5	2.6	29.0	3.0		
	410	SGMR	47	GB	1300.1	1301.5	1.9	100.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	1300.1	1301.5	1.7	2000.0			QL=6 ST=2 TYP=6
	234	POTS	4	S/F	1300.2	1301.6	17.7	5800.0	110.0		III
	536	ONDR	2	S/F	1300.8	1301.8	1.9	78.0			
	808	ONDR	2	S/F	1301.4	1301.6	6.8	8.0			
	536	ONDR	2	S/F	1314.3	1315.0	1.2	15.0			
	113	POTS	4	S/F	1329.8	1331.1	3.7	150.0	35.0		III
	410	SGMR	8	S	1332.8	1333.0	.3	42.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	1332.8	1333.3	.8	325.0	50.0		III
	245	SGMR	8	S	1332.8	1333.5	.8	330.0			QL=6 ST=2 TYP=3
	9500	POTS	1	S	1352.0	1352.5	1.0	10.0			
	234	POTS	42	SER	1352.2	1352.4	6.6	1200.0	6.0		III
	113	POTS	42	SER	1352.3	1352.6	6.7	700.0	5.0		III
	410	SGMR	8	S	1353.6	1353.6	.5	33.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1353.8	1354.0	.3	430.0			QL=6 ST=2 TYP=5
	9400	HUAN	3	S	1419.7	1420.5	3.3	20.6	9.4		0
	9500	POTS	4	S/F	1420.0	1420.5	3.0	15.0			
	8800	SGMR	8	S	1420.1	1420.3	.4	19.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	1421.7	1422.1	.6	275.0	20.0		
	245	SGMR	47	GB	1422.0	1422.1	.3	119.0			QL=6 ST=2 TYP=5
	15400	SGMR	8	S	1422.8	1423.0	2.0	22.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	1423.0	1423.0	14.5	3.4	2.2		0
	2695	SGMR	8	S	1424.8	1424.8	.5	48.0			QL=6 ST=2 TYP=3
	930	BORD	41	F	1539.4	1539.6	.4	42.0	2.0		
	2800	OTTA	21	GRF	1620.0	1658.0	100.0	5.6	2.8		
	9400	HUAN	20	GRF	1620.6	1640.2U	55.6	6.8	3.6		0
	410	SGMR	49	GB	1628.5	1630.6	2.6	45.0			QL=6 ST=2 TYP=6
	245	SGMR	49	GB	1628.8	1629.3	2.0	640.0			QL=6 ST=2 TYP=6
	9400	HUAN	1	S	1748.5	1751.0	4.5	10.3	2.6		R
	4995	SGMR	8	S	1750.6	1751.0	.5	22.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1750.6	1751.1	.9	36.0			QL=6 ST=2 TYP=3
	2800	OTTA	260	FAL	1801.0	1841.0	40.0	-7.4	-3.7		
	2800	OTTA	20	GRF	1930.0	2005.0	130.0	4.0	2.8		
	200	HIRA	46	C	2003.0	2003.6	1.0	112.0	29.0		
	200	HIRA	46	C	2052.6	2059.0	11.3	30.0	10.0		
	9400	TYKW	21	GRF	2140.0U	2222.0U	130.0U	15.0U	6.0U		RAIN
	2800	OTTA	21	GRF	2145.0	2225.0	145.0	4.6	3.0		
	100	HIRA	8	S	2145.2	2145.3	.4	1500.0			WL
	2000	TYKW	21	GRF	2155.0	2222.0	120.0	4.0	2.0		
	3750	TYKW	21	GRF	2200.0	2240.0	130.0	6.0	3.0		RAIN
	2000	TYKW	5	S	2224.0	2224.6	3.0	11.0	1.5		
	1000	TYKW	45	C	2224.0	2225.8	3.0	47.0	3.0		
	245	SGMR	49	GB	2224.1	2224.6	1.7	3899.0			QL=6 ST=2 TYP=6
	9400	TYKW	5	S	2224.3	2224.6	.7	28.0	5.0		RAIN
	500	HIRA	42	SER	2224.3	2225.6	2.0	200.0			0
	2800	OTTA	8	S	2224.5	2224.5	.1	10.8			
	410	SGMR	47	GB	2224.5	2224.6	1.3	290.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	2224.8	2225.8	1.3	90.0			QL=6 ST=2 TYP=5
	2840	PEKG	20	GRF	2253.0	2324.6	67.0	11.8	3.2		
	9395	PEKG	20	GRF	2259.0	2319.0	61.0	7.7	2.8		
	1000	TYKW	21	GRF	2300.0	2315.0	100.0	1.0	.5		
	3750	TYKW	5	S	2303.0	2305.5	10.0	3.0	1.0		
	2930	VORO	47	GB	2305.0	2315.0	10.0	609.0			
	3750	TYKW	20	GRF	2322.0	2332.0	30.0	3.0	1.5		
19	200	GORK	44	NS	0259.0E		561.0D		5.0		
	100	GORK	43	NS	0355.0		488.0D	D	10.0		
	204	IZMI	43	NS	0600.0		360.0	39.0			
	260	ONDR	44	NS	0603.0E	0847.0U	496.0D				
	29	UPIC	43	NS	0655.5		694.5D				
	33	UPIC	43	NS	0655.6		694.4D				
	200	HIRA	43	NS	0830.0	0854.0	260.0D	32.0	5.0		0
	245	SGMR	43	NS	0946.0	1336.6	846.0D	169.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1639.0	0219.5	729.0D	200.0			QL=6 ST=2 TYP=1
	100	HIRA	42	SER	0006.1	0026.3	22.5	950.0			WL
	3750	TYKW	5	S	0018.5	0019.5	3.0	3.0	1.0		
	9400	TYKW	5	S	0018.7	0019.3	3.0	16.0	6.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	9395	PEKG	5	S	0019.0	0019.4	6.0	20.7	10.3		
	2000	TYKW	28	PRE	0020.0	0028.6	21.0	5.0	2.0		
	208	VORO	41	F	0023.0	0026.0	5.0	200.0D			
	2840	PEKG	28	PRE	0023.0	0044.5	30.0	87.4	35.1		
	200	HIRA	42	SER	0024.5	0043.4	20.0	8000.0			0
	9400	TYKW	28	PRE	0026.0	0026.7	15.0	15.0	6.0		
	3750	TYKW	28	PRE	0026.0	0040.0	14.0	8.0	5.0		
	9395	PEKG	45	C	0026.0	0026.8	7.0	17.6	8.2		
	500	HIRA	45	C	0026.0	0027.0	4.0	18.0	7.0		WL
	1000	TYKW	45	C	0026.4	0027.2	3.5	8.0	3.5		
	9395	PEKG	28	PRE	0033.0	0044.5	18.0	75.0	28.4		
	2695	PENT	3	S	0038.8	0039.1	2.0	18.8	6.8		
	3750	TYKW	47	GB	0040.0	0101.6	35.0	700.0	60.0		
	9400	TYKW	47	GB	0041.0	0101.0	39.0	1450.0	130.0		
	2000	TYKW	45	C	0041.0	0103.6	25.0	460.0	45.0		
	2695	PENT	46F	C	0041.0	0056.2	35.0	213.0	55.0		
	2695	MANI	47	GB	0041.5	0056.1	33.0	96.0			QL=6 ST=2 TYP=5
	4995	MANI	49	GB	0041.5	0101.5	31.5	610.0			QL=6 ST=2 TYP=6
	1000	TYKW	28	PRE	0042.0	0044.3	10.0	3.0	1.5		
	8800	MANI	47	GB	0043.0	0101.3	30.5	460.0			QL=6 ST=2 TYP=5
	500	HIRA	45	C	0043.3	0043.7	1.0	60.0	30.0		0
	208	VORO	4	S/F	0044.0	0044.0	1.5	200.0D			
	200	HIRA	46	C	0050.5	0053.6	14.7	6200.0	173.0		0
	9395	PEKG	47	GB	0051.0	0100.8	14.0	1201.0			
	500	HIRA	45	C	0051.7	0100.7	23.0	200.0	50.0		WL
	1000	TYKW	45	C	0052.0	0053.9	23.0	215.0	65.0		
	100	HIRA	46	C	0052.6	0053.3	12.7	5000.0	787.0		WL
	208	VORO	48	C	0053.0	0054.0	11.0	200.0D			
	2840	PEKG	45	C	0053.0	0056.4	12.0	331.0	129.0		
	1415	MANI	47	GB	0053.0	0101.8	20.1	71.0			QL=6 ST=2 TYP=5
	610	MANI	47	GB	0053.1	0056.3	20.9	230.0			QL=6 ST=2 TYP=5
	35000	NAGO	45	C	0057.0	0100.0	6.0	220.0			
	35000	NAGO			0057.0	0101.0		200.0			
	35000	NAGO	29	PBI	0103.0	0103.0	22.0	40.0			
	2840	PEKG	30	PBI	0105.0			74.9	28.1		
	2000	TYKW	30	PBI	0106.0		149.0	15.0	3.5		
	208	VORO	4	S/F	0111.0	0112.0	2.0	20.0			
	2000	TYKW	5	S	0111.3	0112.1	2.0	34.0	9.0		
	2840	PEKG	8	S	0111.6	0112.0	1.4	121.7	32.3		
	9395	PEKG	8	S	0111.7	0112.0	1.3	76.6			
	1000	TYKW	29	PBI	0115.0		25.0	4.0	1.5		
	3750	TYKW	30	PBI	0115.0		144.0	27.0	8.0		
	2695	PENT	29	PBI	0116.0	0116.0	35.0	13.6	6.8		
	9400	TYKW	29	PBI	0120.0		30.0	28.0	9.0		
	1000	TYKW	8	S	0140.1	0140.2	.3	48.0	10.0		
	3750	TYKW	5	S	0200.0	0217.7	20.0	12.0	4.0		
	9400	TYKW	21	GRF	0205.0	0213.0	30.0	4.0	2.0		
	2000	TYKW	21	GRF	0210.0	0217.0	65.0	3.0	1.0		
	9395	PEKG	20	GRF	0211.0	0218.0	11.0	14.5			
	9400	TYKW	5	S	0215.0	0217.8	5.0	17.0	8.0		
	3750	TYKW	30	PBI	0220.0		30.0	5.0	2.0		
	9400	TYKW	29	PBI	0220.0		10.0	5.0	2.0		
	9400	TYKW	31	ABS	0235.0	0413.0	106.0	-16.0	-9.0		RAIN
	2000	TYKW	5	S	0240.0	0240.8	20.0	1.5	.5		
	3750	TYKW	5	S	0240.0	0240.8	3.0	3.0	1.0		
	3750	TYKW	5	S	0244.8	0245.2	1.0	2.0	.7		
	200	HIRA	45	C	0318.6	0318.8	.8	30000.0	4520.0		MR
	100	HIRA	8	S	0318.9	0319.0	.4	4000.0			WL
	9400	TYKW	5	S	0318.9	0319.0	1.5	16.0	3.0		
	2000	TYKW	5	S	0318.9	0319.1	1.5	3.0	1.0		
	3750	TYKW	5	S	0318.9	0319.1	.5	6.0	2.0		
	200	GORK	8	S	0318.9	0319.3	1.0	140.0D			
	650	GORK	3	S	0319.1	0319.2	.6	16.0	8.0		
	100	GORK	8	S	0319.1	0319.3	.7	90.0D			
	9100	GORK	1	S	0319.1	0319.3	.3	14.0	7.0		
	2950	GORK	23	GRF	0324.0E	0325.0	46.2D	10.8			
	9100	GORK	1	S	0326.2	0326.7	1.0	11.3	5.5		
	2000	TYKW	31	ABS	0335.0	0414.0	45.0	-5.0	-2.5		
	3750	TYKW	31	ABS	0339.0	0413.0	40.0	-9.0	-4.0		
	9100	GORK	21	GRF	0339.0	0547.0	507.0D	65.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	2840	PEKG	45	C	0350.0	0353.4	10.0	97.9	41.0		
	9395	PEKG	45	C	0352.0	0353.2	12.0	70.3	29.0		
	9400	TYKW	45	C	0352.3	0352.7	3.7	66.0	18.0		
	3750	TYKW	5	S	0352.4	0353.3	6.6	68.0	13.0		
	17000	NOBE	1	S	0352.5	0353.2	4.0	27.0			0
	1000	TYKW	5	S	0352.5	0353.3	8.0	9.0	2.5		
	2000	TYKW	5	S	0352.5	0353.4	10.0	49.0	7.0		
	100	GORK	8	S	0352.7	0352.7	.2	90.0D			
	9100	GORK	4	S/F	0352.7	0352.9	1.3	63.0			
	2950	GORK	3	S	0352.7	0353.5	4.1	58.0			
	950	GORK	1	S	0353.0	0353.4	6.8	6.0			
	650	GORK	4	S/F	0353.1	0353.5	.6	11.0			
	9400	TYKW	29	PBI	0356.0		7.0	6.0	3.0		
	2840	PEKG	29	PBI	0400.0	0408.0	13.0	20.0			
	2840	PEKG	28	PRE	0413.5	0415.8	5.2	33.0	12.0		
	9400	TYKW	45	C	0414.0	0422.3	12.0	127.0	24.0		
	9395	PEKG	3	S	0414.0	0422.3	12.0	110.0	48.2		
	3750	TYKW	45	C	0415.0	0422.6	15.0	145.0	45.0		
	2000	TYKW	45	C	0415.0	0423.8	20.0	81.0	21.0		
	6100	KISV	28	PRE	0415.0	0417.0	4.5	14.0			
	2950	GORK	21	GRF	0415.0	0559.9	366.0D	38.0			
	17000	NOBE	7	C	0415.3	0422.2	52.0	107.0			0
	2950	GORK	2	S/F	0415.5	0416.0	2.4	15.0			
	35000	NAGO	20	GRF	0416.0	0431.0	74.0	30.0			
	2840	PEKG	45	C	0418.7	0422.6	11.3	166.0	78.0		
	6100	KISV	4	S/F	0419.7	0422.6	5.5	121.0			
	1000	TYKW	45	C	0421.0	0423.7	14.0	38.0	9.0		
	15000	KISV	4	S/F	0421.3	0422.3	3.0	120.0U			
	9100	GORK	4	S/F	0421.6	0422.4	3.2	100.0			
	500	HIRA	45	C	0421.6	0424.3	6.0	20.0	8.0		WR
	950	GORK	21	GRF	0421.7	0433.2	37.3	8.7			
	950	GORK	3	S	0422.5	0423.9	4.2	33.0			
	15000	KISV	29	PBI	0424.3	0424.3	33.0U	50.0U			
	650	GORK			0424.7E		26.0D				
	9400	TYKW	30	PBI	0425.0		75.0U	44.0	22.0U		RAIN
	6100	KISV	29	PBI	0425.2	0425.3	75.0	52.0			
	9395	PEKG	29	PBI	0426.0	0438.7	112.0	48.0	21.3		
	3750	TYKW	30	PBI	0430.0		220.0	37.0	18.0		
	2840	PEKG	29	PBI	0430.0	0503.0	126.0D	74.7	29.0		
	9400	TYKW	5	S	0433.0	0433.6	1.0	9.0	3.0		
	1000	TYKW	30	PBI	0435.0		190.0	4.0	2.0		
	2000	TYKW	30	PBI	0435.0		190.0	17.0	9.0		
	9400	TYKW	5	S	0438.0	0438.6	6.0	6.0	2.0		
	3750	TYKW	20	GRF	0438.0	0508.0	60.0	6.0	3.0		
	200	GORK	4	S/F	0438.7	0440.4	1.6	130.0			
	100	GORK	4	S/F	0439.0	0441.3	3.3	260.0			
	100	HIRA	41	F	0439.6	0440.0	2.5	890.0			0
	2000	TYKW	20	GRF	0453.0	0515.0	35.0	3.0	1.5		
	9395	PEKG	28	PRE	0527.0	0528.8	13.0	9.1	2.9		
	2840	PEKG	28	PRE	0529.0	0535.7	12.5	17.1	8.2		
	200	HIRA	42	SER	0531.3	0540.6	11.5	4000.0			0
	650	GORK	41	F	0531.5	0531.8	10.8	2.0			
	650	GORK			0531.5	0541.1		70.0			
	200	GORK	41	F	0531.6	0531.8	11.4	130.0D			
	200	GORK			0531.6	0541.1		130.0D			
	2000	TYKW	45	C	0540.0	0544.6	10.0	45.0	15.0		
	9395	PEKG	45	C	0540.0	0544.4	8.0	115.0	52.0		
	8400	BERN	21	GRF	0540.0U	0544.4	140.0U	128.0			
	11800	BERN	21	GRF	0540.0U	0544.4	140.0U	130.0			
	2650	DWIN	2	S/F	0540.0	0545.0	5.0U	47.0	20.0		SUNRISE
	500	HIRA	8	S	0540.6	0540.7	.6	40.0	25.0		0
	1000	TYKW	5	S	0540.6	0541.1	1.5	6.0	1.5		
	100	HIRA	42	SER	0540.6	0542.2	4.7	1900.0			WL
	950	GORK	1	S	0540.7	0541.2	1.0	5.0			
	100	GORK	41	F	0540.8	0541.4	5.0	70.0D			
	100	GORK			0540.8	0543.3		70.0D			
	3750	TYKW	45	C	0541.0	0545.4	8.0	57.0	22.0		
	2840	PEKG	45	C	0541.5	0544.6	11.5	82.0	39.6		
	6100	KISV			0542.3	0544.5		77.0			
	6100	KISV	45	C	0542.3	0545.5	5.0	83.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	3100	CRIM	3	S	0542.5	0545.1	8.0	54.0	18.0		
	9400	TYKW	45	C	0543.0	0544.5	4.0U	94.0	37.0U		RAIN
	15000	KISV	45	C	0543.3	0544.5	3.5	139.0			
	15000	KISV			0543.3	0545.5		120.0			
	17000	NOBE	7	C	0543.8	0544.5	21.0	76.0			R
	1000	TYKW	5	S	0544.0	0544.8	3.0	5.0	1.5		
	9100	GORK	46	C	0544.0	0544.6	3.0	113.0			
	9100	GORK			0544.0	0545.7		93.0			
	15000	KISV	29	PBI	0546.5	0547.0	100.0	50.0			
	9400	TYKW	29	PBI	0547.0U		130.0U	26.0U	13.0U		
	6100	KISV	29	PBI	0547.2	0547.2	75.0	22.0			
	9395	PEKG	29	PBI	0548.0	0551.5	122.0	41.6	15.8		
	15000	KISV	20	GRF	0548.5	0554.0	15.0	16.0			
	3750	TYKW	30	PBI	0549.0		100.0	12.0	6.0		
	2000	TYKW	29	PBI	0550.0		65.0	6.0	3.0		
	3750	TYKW	20	GRF	0552.0	0614.0	90.0	6.0	3.0		
	2840	PEKG	29	PBI	0553.0	0600.0	29.0	28.4	13.5		
	1000	TYKW	8	S	0616.9	0617.0	.3	3.0	1.0		
	650	GORK	2	S/F	0634.2	0636.2	4.0	2.5			
	950	GORK	2	S/F	0634.3	0636.3	6.2	13.0			
	234	POTS	4	S/F	0634.5	0634.7	.5	275.0	10.0		
	3100	CRIM	26	FAL	0645.0	0812.0		2.0			
	113	POTS	8	S	0655.7	0655.7	.2	280.0	90.0		III
	200	GORK	4	S/F	0814.5	0816.0	2.4	130.0D			
	930	BORD	8	S	0814.8	0814.8	.2	123.0	2.0		
	650	GORK	8	S	0814.8	0815.0	.3	25.0			
	204	IZMI	41	F	0814.8	0815.2	1.6	1600.0			
	950	GORK	8	S	0814.9	0814.9	.1	36.0			
	234	POTS	41	F	0814.9	0816.0	1.2	220.0	6.0		
	2000	TYKW	21	GRF	0815.0	0845.0	65.0	6.0	3.0		INTERFERENCE
	3750	TYKW	5	S	0819.0	0823.0	10.0	6.0	2.0		
	6100	KISV	2	S/F	0823.1	0823.7	4.0	8.0			
	2840	PEKG	21	GRF	0834.0	0908.0	44.0	25.7	5.4		
	9395	PEKG	22	GRF	0835.0	0839.6	38.0	9.1	2.8		
	3100	CRIM	1	S	0836.5	0839.0	2.5	22.0	7.0		
	2840	PEKG	5	S	0837.5	0839.1	3.5	29.0	4.7		
	3000	POTS	3	S	0837.5	0839.3	4.0	23.0			
	1470	POTS	3	S	0837.5	0839.5	3.5	10.0			
	6100	KISV	21	GRF	0837.7	0848.7	20.0	8.0			
	2000	TYKW	5	S	0838.0	0839.3	5.0	21.0	5.0		
	3750	TYKW	5	S	0838.0	0839.3	3.0	18.0	8.0		
	2650	DWIN	1	S	0838.0	0839.0	2.0	22.0	10.0		
	3750	TYKW	29	PBI	0841.0		15.0	4.0	2.0U		INTERFERENCE
	100	GORK	46	C	0841.6	0841.8	1.4	70.0D			
	100	GORK			0841.6	0842.4		70.0D			
	113	POTS	4	S/F	0841.9	0842.1	1.8	200.0	7.0		III
	113	POTS	27	RF	0844.0	0919.0	141.0	75.0	20.0		RISE
	100	HIRA	27	RF	0850.0	0919.0	60.0D	510.0U	86.0U		WL,SUNSET
	650	GORK	2	S/F	0850.3	0850.6	.6	6.5			
	6100	KISV	21	GRF	0901.5	0903.0	15.0	6.0			
	650	GORK	22	GRF	0909.0	0912.0	14.8	5.5			
	950	GORK	2	S/F	1002.1	1003.0	1.2	19.0			
	234	POTS	4	S/F	1006.5	1006.5	.2	165.0	15.0		
	8800	SGMR	8	S	1030.6	1031.3	1.2	29.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1030.6	1031.3	.7D	27.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1030.6	1031.3	.7D	31.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1031.8	1033.0	1.2D	18.0			QL=6 ST=2 TYP=3
	113	POTS	42	SER	1033.4	1036.5	3.8	300.0	20.0		III
	9395	PEKG	30	PBI	1050.0		147.0	107.0	57.1		
	8800	SGMR	4	S/F	1055.3	1057.3	11.5	28.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1056.6	1057.3	.7D	20.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1101.6	1103.8	2.2D	20.0			QL=6 ST=2 TYP=3
	930	BORD	41	F	1101.8	1101.9	.2	66.0	2.0		
	4995	SGMR	8	S	1101.8	1103.8	2.0	17.0			QL=6 ST=2 TYP=3
	808	ONDR	8	S	1102.1	1102.1	.2	18.0			
	2800	OTTA	240	R	1200.0	1215.0	15.0	5.8	2.9		
	410	SGMR	8	S	1247.8	1248.1	1.5	33.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1248.1	1248.3	.2	139.0			QL=6 ST=2 TYP=5
	234	POTS	41	F	1248.3	1248.4	.8	180.0	4.0		III
	930	BORD	46	C	1318.7	1319.4	1.1	54.0	4.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	1470	POTS	3	S	1336.5	1337.0	1.0	10.0			
	113	POTS	42	SER	1336.5	1344.9	9.6	750.0	30.0		III
	234	POTS	4	S/F	1336.6	1336.7	.7	500.0	15.0		III
	9400	HUAN	20	GRF	1355.4	1400.7	30.4	3.5	1.9		0
	536	ONDR	8	S	1403.2	1403.3	.1	104.0			
	234	POTS	4	S/F	1431.7	1431.9	1.6	200.0	3.0		III
	2800	OTTA	1	S	1447.0	1447.6	3.0	8.0	2.7		
	2800	OTTA	21	GRF	1510.0	1550.0	80.0	6.8	3.4		
	9400	HUAN	21	GRF	1521.8	1555.6	91.3	10.6	3.6		0
	2800	OTTA	40	F	1534.5	1542.2	11.0	9.0			
	610	SGMR	8	S	1538.6	1538.8	.2	46.0			QL=6 ST=2 TYP=3
	9400	HUAN	3	S	1608.5	1610.6	5.3	26.6	9.2		0
	2800	OTTA	3	S	1609.0	1610.0	5.0	22.4	5.6		
	2800	OTTA	22	GRF	1805.0	1811.0	85.0	8.8	4.4		
	9400	HUAN	23	GRF	1809.7	1847.2	154.3	25.7	19.4		0
	4995	SGMR	4	S/F	1809.8	1810.8	5.3	22.0			QL=6 ST=2 TYP=3
	8800	SGMR	20	GRF	1829.3	1831.3	2.0D	19.0			QL=6 ST=2 TYP=2
	610	SGMR	47	GB	1841.3	1841.6	1.3	139.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1841.3	1842.0	2.0	60.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	1841.3	1842.1	1.5	35.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	1841.5	1841.6	1.8	169.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1841.5	1842.1	1.8	53.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1841.5	1842.1	1.6	93.0			QL=6 ST=2 TYP=5
	15400	SGMR	20	GRF	1844.5	1848.6	11.5	40.0			QL=6 ST=2 TYP=2
	2695	SGMR	4	S/F	1846.3	1849.6	10.0	36.0			QL=6 ST=2 TYP=3
	610	PALE	4	S/F	1847.0	1848.5	3.6	35.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1847.0	1849.1	3.6	130.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1847.0	1849.5	3.6	84.0			QL=6 ST=2 TYP=5
	610	SGMR	8	S	1848.1	1848.3	1.5	37.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1848.1	1849.0	1.0	24.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1848.1	1849.1	2.9	68.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	1848.3	1848.5	.2	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1848.3	1848.6	.3	28.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1933.3	1933.6	1.5	130.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1933.3	1935.1	1.8D	56.0			QL=6 ST=2 TYP=5
	2800	OTTA	21	GRF	1955.0	2015.0	80.0	4.2	1.8		
	200	HIRA	41	F	2010.0	2019.6	19.0	1140.0	68.0		WR
	245	PALE	49	GB	2010.6	2010.6	11.2	390.0			QL=6 ST=2 TYP=6
	100	HIRA	42	SER	2010.6	2014.8	21.0	10000.0D			
	610	PALE	49	GB	2010.6	2015.1	11.2	2800.0			QL=6 ST=2 TYP=6
	410	PALE	49	GB	2010.6	2017.6	11.2	430.0			QL=6 ST=2 TYP=6
	9400	HUAN	45	C	2014.0	2014.6	8.5	26.6	12.9		0
	9400	HUAN			2014.0	2017.4		25.7			
	9400	HUAN			2014.0	2019.3		27.5			
	2800	OTTA	45	C	2014.2	2015.0	8.0	11.6	3.9		
	1415	PALE	47	GB	2014.6	2015.3	2.0	90.0			QL=6 ST=2 TYP=5
	3750	TYKW	45	C	2109.8	2110.2	2.0	4.0	2.0		
	3750	TYKW	5	S	2152.7	2153.1	1.0	8.0	3.0		
	3750	TYKW	21	GRF	2205.0	2317.0	200.0	34.0	16.0		
	2800	OTTA	21	GRF	2205.0	2310.0	175.0	21.4	11.0		
	3750	TYKW	45	C	2206.0	2209.3	3.3U	35.0	10.0		
	2000	TYKW	21	GRF	2206.0	2316.0	350.0	13.0	6.0		
	9400	HUAN	45	C	2206.2	2208.9	10.6	44.3	19.7		0
	9400	TYKW	45	C	2206.5	2209.2	4.0D	50.0	18.0U		
	2000	TYKW	45	C	2207.0	2209.1	14.0	8.0	3.5		
	2800	OTTA	4	S/F	2207.5	2209.0	14.0	17.8	7.4		
	15400	SGMR	4	S/F	2208.1	2209.1	3.5	30.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2208.3	2209.1	1.5	37.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2208.6	2209.1	4.0	47.0			QL=6 ST=2 TYP=3
	35000	NAGO	20	GRF	2215.0	2242.0	127.0	120.0			
	1000	TYKW	21	GRF	2220.0	2355.0	540.0	6.0	3.0		
	100	HIRA	46	C	2220.0	2220.1	2.0	2800.0	660.0		WL
	200	HIRA	45	C	2220.0	2220.5	1.0	105.0	46.0		WL
	9400	TYKW	21	GRF	2240.0E	2305.0	170.0D	55.0	28.0D		
	9400	TYKW	5	S	2256.0	2259.0	8.0	7.0	3.0		
	2840	PEKG	20	GRF	2259.0	2341.0	88.0	20.8	12.0		
	9395	PEKG	21	GRF	2301.0	2342.5	93.0	19.2	9.2		
	9400	TYKW	45	C	2306.7	2307.4	2.0	30.0	8.0		
	3750	TYKW	5	S	2306.8	2307.3	1.2	7.0	2.0		
	8800	PALE	47	GB	2306.8	2307.3	1.8	54.0			QL=6 ST=3 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	4995	PALE	8	S	2306.8	2307.3	1.8	30.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	2307.0	2307.3	3.3	26.0			QL=6 ST=2 TYP=3
	9395	PEKG	8	S	2307.0	2307.4	2.0	25.0	10.2		
	2695	SGMR	4	S/F	2307.0	2309.1	2.1	28.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	2309.0	2310.3	4.0	3.0	1.0		
	1415	SGMR	4	S/F	2309.3	2310.3	2.2	20.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	2309.5	2310.5	2.5	3.0	1.0		
	9400	TYKW	5	S	2309.6	2310.2	3.5	16.0	6.0		
	3750	TYKW	45	C	2339.0	2341.7	5.0	11.0	5.0		
	245	LEAR	8	S	2340.8	2341.8	1.8	18.0			QL=6 ST=2 TYP=3
	100	HIRA	46	C	2341.4	2341.5	1.6	10000.0D	930.0D		
	3750	TYKW	29	PBI	2344.0		8.0	2.0	1.0		
20	29	UPIC	44	NS	0330.0E		688.8D				
	33	UPIC	44	NS	0330.0E		689.0D				
	260	ONDR	43	NS	0930.0		270.0D				
	245	SGMR	43	NS	0947.0	1457.6	845.0D	110.0			QL=6 ST=3 TYP=1
	2000	TYKW	45	C	0037.0	0039.3	5.0	14.0	4.0		
	2840	PEKG	3	S	0037.0	0039.2	4.0	39.0	12.3		
	9395	PEKG	21	GRF	0037.0	0044.6	43.0	12.1	5.9		
	3750	TYKW	5	S	0038.0	0039.2	3.0	27.0	7.0		
	9400	TYKW	45	C	0038.0	0039.2	9.0	29.0	7.0		
	8800	LEAR	8	S	0039.0	0039.1	.6	36.0			QL=6 ST=2 TYP=3
	9395	PEKG	8	S	0039.0	0039.2	1.0	21.4	10.2		
	2695	PALE	8	S	0039.1	0039.1	1.2	20.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0039.1	0039.1	1.2	18.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0039.1	0039.1	.2	28.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0039.1	0039.1	1.2	15.0			QL=6 ST=2 TYP=3
	17000	NOBE	1	S	0039.1	0039.2	.8	22.0			0
	15400	LEAR	8	S	0039.1	0039.3	.5	27.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0039.1	0039.3	.4	30.0			QL=6 ST=2 TYP=3
	3750	TYKW	29	PBI	0041.0		20.0	2.0	1.0		
	2840	PEKG	29	PBI	0041.0		20.0	6.9	2.7		
	245	LEAR	8	S	0041.0	0041.5	1.0	33.0			QL=6 ST=2 TYP=3
	2000	TYKW	29	PBI	0042.0		15.0	3.0	1.5		
	9400	TYKW	29	PBI	0047.0		20.0	5.0	2.0		
	1000	TYKW	21	GRF	0130.0	0230.0	150.0	2.0	1.0		
	2000	TYKW	21	GRF	0140.0	0212.0	130.0	4.0	2.0		
	2695	PENT	21	GRF	0141.0	0144.5	14.0	9.0	4.5		
	3750	TYKW	28	PRE	0141.5	0144.5	24.5	3.0	2.0		
	2000	TYKW	45	C	0142.0	0144.3	7.0	7.0	4.0		
	1000	TYKW	45	C	0142.0	0144.4	7.0	4.0	2.0		
	2840	PEKG	5	S	0142.0	0144.0	9.7	11.5	2.5		
	245	LEAR	8	S	0142.8	0142.8	.3	37.0			QL=6 ST=2 TYP=3
	9400	TYKW	21	GRF	0146.0	0245.0	130.0	11.0	5.0		
	1000	TYKW	30	PBI	0149.0		7.0	1.5	.5		
	2000	TYKW	30	PBI	0149.0		7.0	3.0	1.0		
	3750	TYKW	5	S	0151.0	0152.6	4.0	25.0	4.0		
	9395	PEKG	3	S	0151.0	0152.6	4.0	37.0	19.0		
	9400	TYKW	45	C	0151.5	0152.6	3.0	31.0	6.0		
	2840	PEKG	5	S	0151.7	0152.6	7.3	34.6	16.3		
	1000	TYKW	45	C	0151.7	0152.7	2.0	2.5	1.0		
	2000	TYKW	45	C	0152.0	0152.3	1.5	15.0	4.0		
	8800	LEAR	4	S/F	0152.0	0152.6	2.1	40.0			QL=6 ST=2 TYP=3
	2695	PENT	1	S	0152.0	0152.7	1.5	9.8	3.8		
	2695	LEAR	8	S	0152.5	0152.6	1.1	19.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0152.5	0152.6	1.3	27.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0152.5	0152.6	1.1	31.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0152.5	0152.6	1.1	38.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0152.5	0152.8	1.5	23.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0152.6	0153.0	1.0	18.0			QL=6 ST=2 TYP=3
	9395	PEKG	29	PBI	0155.0	0159.5	8.0	2.8	.8		
	2840	PEKG	23	GRF	0159.0	0236.0	66.0	7.8	3.9		
	1415	LEAR	4	S/F	0201.0	0203.1	4.1	11.0			QL=6 ST=2 TYP=3
	1000	TYKW	45	C	0201.7	0203.8	4.0	5.0	1.0		
	2000	TYKW	5	S	0202.0	0203.3	2.5	9.0	2.0		
	3750	TYKW	5	S	0202.0	0203.4	3.0	26.0	5.0		
	500	HIRA	45	C	0202.0	0202.7	2.6	18.0	4.0		0
	610	LEAR	4	S/F	0202.0	0203.1	3.8	8.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0202.0	0203.1	2.0	35.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	245	LEAR	49	GB	0202.0	0204.8	3.3	640.0			QL=6 ST=2 TYP=6
	245	PALE	49	GB	0202.1	0204.8	4.0	840.0			QL=6 ST=2 TYP=6
	2840	PEKG	8	S	0202.5	0203.3	1.5	30.9	14.5		
	100	HIRA	42	SER	0202.7	0214.5	28.3	1100.0			WL
	9400	TYKW	5	S	0203.0	0203.3	2.0	63.0	15.0		
	9395	PEKG	3	S	0203.0	0203.2	5.0D	60.5	28.2		
	200	HIRA	42	SER	0203.0	0203.4	29.0	2400.0			0
	208	VORO	42	SER	0203.0	0205.0	31.0	200.0D			
	8800	PALE	47	GB	0203.1	0203.3	1.5	83.0			QL=6 ST=2 TYP=5
	4995	LEAR	8	S	0203.1	0203.3	.5	42.0			QL=6 ST=2 TYP=3
	15400	PALE	47	GB	0203.1	0203.3	1.7	51.0			QL=6 ST=2 TYP=5
	2695	LEAR	8	S	0203.1	0203.3	.4	18.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0203.1	0203.3	1.4	48.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0203.1	0203.3	.9	79.0			QL=6 ST=2 TYP=5
	15400	LEAR	8	S	0203.1	0203.3	.9	43.0			QL=6 ST=2 TYP=3
	17000	NOBE	1	S	0203.2	0203.4	2.0	41.0			0
	9400	TYKW	30	PBI	0205.0		7.0	4.0	2.0		
	3750	TYKW	45	C	0206.0	0209.7	20.0	23.0	11.0		
	9400	TYKW	45	C	0208.0	0209.6	3.0	17.0	6.0		
	9395	PEKG	5	S	0208.0	0209.6	5.0D	22.8	10.2		
	2840	PEKG	20	GRF	0208.0	0209.8	15.0	9.2	2.7		
	8800	PALE	4	S/F	0208.6	0209.6	2.2	32.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0211.1	0214.0	4.0	40.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	0212.0	0214.0	6.0	25.0	12.0		
	9395	PEKG	5	S	0213.0	0215.0	5.0	32.0	10.9		
	610	LEAR	4	S/F	0213.5	0214.1	4.3	15.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0213.5	0219.6	6.8	180.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0213.6	0213.8	1.5	67.0			QL=6 ST=2 TYP=5
	1000	TYKW	45	C	0213.9	0214.0	1.5	15.0	1.5		
	2000	TYKW	45	C	0214.0	0214.2	2.0	6.0	.7		
	8800	PALE	8	S	0214.5	0214.6	1.8	23.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0217.0	0217.3	1.0	1.5	.5		
	9395	PEKG	30	PBI	0218.0	0218.5	15.0	14.0	7.4		
	3750	TYKW	30	PBI	0226.0		85.0	8.0	4.0		
	9395	PEKG	1	S	0228.0	0230.1	5.0	9.3	3.5		
	1415	LEAR	4	S/F	0228.1	0230.1	6.4	43.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0228.8	0230.1	5.3	45.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0228.8	0230.1	5.3	48.0			QL=6 ST=2 TYP=3
	1000	TYKW	45	C	0229.0	0230.3	3.0	82.0	6.0		
	610	LEAR	4	S/F	0229.0	0230.1	1.1D	38.0			QL=6 ST=2 TYP=3
	500	HIRA	45	C	0229.4	0230.3	2.0	55.0	15.0		WR
	1415	PALE	8	S	0229.8	0230.1	1.8	48.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0229.8	0230.1	1.5	50.0			QL=6 ST=2 TYP=5
	610	PALE	8	S	0229.8	0230.1	1.8	38.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	0229.8	0230.1	1.8	50.0			QL=6 ST=2 TYP=5
	2000	TYKW	45	C	0230.0	0230.3	1.5	5.0	1.0		
	9395	PEKG	20	GRF	0233.0	0245.0	32.0	8.5	2.9		
	3750	TYKW	45	C	0234.0	0241.4	14.0	6.0	3.0		
	2840	PEKG	20	GRF	0239.0	0241.0	26.0	4.6	1.8		
	3750	TYKW	29	PBI	0248.0		10.0	2.0	1.0		
	9100	GORK	21	GRF	0328.0E		149.0D				
	2950	GORK	21	GRF	0330.0E	0437.4	345.0D	15.0			
	3750	TYKW	28	PRE	0410.0	0413.0	5.0	12.0	4.0		
	9395	PEKG	28	PRE	0411.0	0413.3	4.5	88.8	44.3		
	6100	KISV	28	PRE	0411.6	0413.0	4.0	37.0			
	9100	GORK	4	S/F	0411.6	0417.9	7.7	634.0			
	2840	PEKG	28	PRE	0412.0	0413.0	4.0	5.5	1.9		
	8800	LEAR	49	GB	0412.0E	0413.6	19.5D	37.0			QL=5 ST=2 TYP=6
	1415	LEAR	4	S/F	0412.0E	0417.6	6.8D	30.0			QL=5 ST=2 TYP=3
	410	LEAR	4	S/F	0412.0E	0417.6	6.8D	25.0			QL=5 ST=2 TYP=3
	15400	LEAR	49	GB	0412.0E	0417.8	14.5D	520.0			QL=5 ST=2 TYP=6
	4995	LEAR	47	GB	0412.0E	0417.8	7.8D	160.0			QL=5 ST=2 TYP=5
	2695	LEAR	47	GB	0412.0E	0418.0	6.8D	60.0			QL=5 ST=2 TYP=5
	245	LEAR	47	GB	0412.0E	0418.3	6.8D	58.0			QL=5 ST=2 TYP=5
	610	LEAR	4	S/F	0412.0E	0418.3	7.0D	20.0			QL=5 ST=2 TYP=3
	15000	KISV	28	PRE	0412.3	0413.3	1.5	62.0			
	8800	PALE	47	GB	0412.3	0413.3	2.2	100.0			QL=6 ST=2 TYP=5
	650	GORK	21	GRF	0412.6	0419.6	20.4	4.0			
	100	GORK	41	F	0412.7	0412.9	7.0	60.0			
	100	GORK			0412.7	0418.2		2000.0			

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	200	GORK	4	S/F	0412.7	0418.7	7.2	110.0			
	1000	TYKW	5	S	0412.9	0413.1	1.0	1.0	.3		
	3750	TYKW	5	S	0415.0	0417.9	6.0	105.0	26.0		
	9395	PEKG	45	C	0415.5	0417.9	6.5	468.0	156.0		
	6100	KISV	4	S/F	0415.8	0417.9	4.0	190.0			
	1000	TYKW	45	C	0416.0	0418.3	5.0	24.0	7.0		
	2000	TYKW	45	C	0416.0	0419.3	4.0	34.0	11.0		
	2840	PEKG	3	S	0416.0	0417.9	6.0	78.9	32.0		
	8800	PALE	49	GB	0416.1	0417.8	4.2	540.0			QL=6 ST=2 TYP=6
	15000	KISV	47	GB	0416.1	0417.9	3.0	745.0			
	2950	GORK	4	S/F	0416.3	0417.9	3.4	64.0			
	200	HIRA	46	C	0416.3	0418.0	4.8	170.0	37.0		WR
	950	GORK	4	S/F	0416.4	0418.3	9.3	25.0			
	15400	PALE	47	GB	0416.6	0417.8	4.0	500.0			QL=6 ST=2 TYP=5
	500	HIRA	46	C	0416.6	0418.0	4.0	13.0	5.0		WL
	4995	PALE	47	GB	0416.6	0418.0	3.5	169.0			QL=6 ST=2 TYP=5
	100	HIRA	46	C	0416.6	0418.0	4.2	3500.0	1080.0		WL
	2695	PALE	8	S	0417.3	0417.8	2.0	41.0			QL=6 ST=2 TYP=3
	650	GORK	4	S/F	0417.3	0418.2	2.2	7.5	3.7		
	610	PALE	4	S/F	0417.6	0418.3	2.2	20.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0418.0	0418.3	1.8	70.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	0418.0	0418.3	1.3	22.0			QL=6 ST=2 TYP=3
	15000	KISV	29	PBI	0419.1	0419.1	13.0U	50.0			
	6100	KISV	29	PBI	0419.5	0419.5	13.0D	28.0			
	17000	NOBE	29	PBI	0419.9	0419.9	10.0	26.0			L
	2000	TYKW	30	PBI	0420.0		40.0	3.0	1.5		
	3750	TYKW	30	PBI	0421.0		75.0	9.0	4.0		
	1000	TYKW	29	PBI	0421.0		40.0	2.0	1.0		
	9400	TYKW	30	PBI	0421.0		80.0	16.0	5.0		
	2840	PEKG	30	PBI	0422.0	0437.5	27.0	10.0	3.9		
	9395	PEKG	29	PBI	0422.0	0441.0	35.0	40.0	18.4		
	3750	TYKW	28	PRE	0423.0	0428.1	10.0	22.0	1.5		
	6100	KISV	28	PRE	0432.5	0437.2	7.0	12.0			
	17000	NOBE	20	GRF	0432.7	0441.7	36.0	26.0			R
	3750	TYKW	45	C	0433.0	0440.6	15.0	43.0	12.0		
	9400	TYKW	28	PRE	0434.0	0436.0	5.0	5.0	2.0		
	2000	TYKW	5	S	0436.0	0440.5	12.0	5.0	2.0		
	9400	TYKW	45	C	0439.0	0441.0	5.0	40.0	16.0		
	2840	PEKG	5	S	0439.5	0440.5	4.5	15.0	6.2		
	2950	GORK	3	S	0439.5	0440.5	5.0	19.0			
	6100	KISV	46	C	0439.6	0440.5	3.5	55.0			
	9100	GORK	4	S/F	0439.7	0440.5	2.6	43.0			
	4995	LEAR	4	S/F	0439.8	0440.5	3.8	47.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0439.8	0440.6	5.5	22.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0439.8	0441.0	4.0	40.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0440.0	0441.1	5.5	23.0			QL=6 ST=2 TYP=3
	6100	KISV	29	PBI	0443.0	0443.0	19.0	25.0			
	9400	TYKW	29	PBI	0444.0		10.0	7.0	4.0		
	3750	TYKW	29	PBI	0448.0		12.0	3.0	1.5		
	2950	GORK	1	S	0606.3	0607.0	1.3	4.2			
	9100	GORK	21	GRF	0606.8	0632.1	122.0	10.7			
	950	GORK	8	S	0607.9	0608.2	.5	27.0			
	2000	TYKW	5	S	0608.0E	0608.0U	15.0D	5.0D	1.5D		
	9400	TYKW	21	GRF	0625.0	0700.0	80.0	4.0	2.0		
	6100	KISV	25	R	0627.0	1118.0	291.0U	20.0U			
	3750	TYKW	21	GRF	0630.0	0700.0U	60.0U	2.0U	1.0U		
	9400	TYKW	5	S	0630.5	0631.0	3.0	7.0	3.0		
	3750	TYKW	5	S	0630.5	0631.5	5.0	6.0	2.0		
	6100	KISV	1	S	0630.7	0631.2	4.0	6.0			
	9100	GORK			0630.8	0631.1	.8	9.5	4.5		
	2950	GORK	1	S	0630.8	0631.3	1.0	2.8			
	200	GORK	41	F	0636.2	0636.7	5.6	30.0			
	200	GORK			0636.2	0642.9		40.0D			
	9400	TYKW	5	S	0640.0	0641.0	3.0	6.0	2.0		
	200	HIRA	46	C	0640.1	0640.3	1.2	1100.0	308.0		0
	204	IZMI	4	S/F	0640.3	0640.7	1.4	630.0	150.0		
	6100	KISV	1	S	0640.3	0641.0	4.0	4.0			
	100	GORK	8	S	0640.4	0641.0U	2.0	70.0D			
	650	GORK	1	S	0640.4	0641.0	1.5	3.0			
	100	HIRA	46	C	0640.5		2.0	10000.0D	3280.0D		

SOLAR RADIO EMISSION
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JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	245	LEAR	47	GB	0640.5	0640.6	1.0	139.0			QL=6 ST=2 TYP=5
	113	POTS	4	S/F	0640.5	0640.6	1.6	9000.0	3000.0		III
	234	POTS	4	S/F	0640.5	0640.6	1.9	275.0	50.0		III
	9100	GORK	1	S	0640.5	0640.9	.9	8.0	4.0		
	260	ONDR	45	C	0640.8	0641.3	2.3	79.0	71.0		
	950	GORK	1	S	0708.2	0710.7	4.5	6.0			
	6100	KISV	2	S/F	0751.7	0752.8	3.5	5.0			
	9400	TYKW	5	S	0752.0	0752.9	2.0	9.0	3.0		
	100	GORK	46	C	0845.0	0845.2	3.0	60.0D			
	100	HIRA	42	SER	0845.0	0846.3	2.2	1500.0			WL
	100	GORK			0845.0	0846.5		60.0D			
	113	POTS	41	F	0845.1	0846.5	2.1	350.0	10.0		III
	200	GORK	4	S/F	0845.8	0846.0	1.5	30.0			
	2950	GORK	21	GRF	0930.3	1003.5	148.0D	41.1			
	9100	GORK	22	GRF	0939.6	1048.6	144.0	39.0			
	6100	KISV			0947.5	0954.8		16.0			
	6100	KISV			0947.5	0956.7		30.0			
	6100	KISV	46	C	0947.5	1004.7	36.0	40.0			
	2650	DWIN	2	S/F	0950.0	1003.0	15.0	30.0	15.0		
	1470	POTS	21	GRF	0950.0	1003.5	50.0	9.0			
	3000	POTS	23	GRF	0950.0	1003.5	25.0	36.0			
	9500	POTS	20	GRF	0950.0	1005.0	80.0	30.0			
	950	GORK	1	S	0954.2	0957.7	5.5	5.0			
	100	GORK	8	S	0955.3	0955.4	.6	35.0			
	2950	GORK	3	S	0956.0	0957.1	2.5	19.7			
	650	GORK	1	S	0956.1	0956.4	3.1	3.5			
	200	GORK	41	F	0956.2	0956.5	9.0	2.0			
	200	GORK			0956.2	1004.2		40.0			
	650	GORK	1	S	1002.6	1003.1	1.6	3.5			
	6100	KISV	29	PBI	1015.0	1015.0	50.0	20.0			
	2800	OTTA	26A	FAL	1100.0E	1735.0	395.0D	-27.6	-13.8		
	650	GORK	21	GRF	1117.3		43.0D	11.0			
	2800	OTTA	21	GRF	1120.0	1205.0	120.0	18.4	13.0		
	6100	KISV	1	S	1124.2	1124.5	1.5	6.0			
	3000	POTS	21	GRF	1130.2	1146.5	120.0D	27.0			
	6100	KISV	20	GRF	1131.0	1148.0	75.0	13.0			
	950	GORK	21	GRF	1132.2	1154.8	30.8D	15.0			
	1470	POTS	21	GRF	1135.0E	1146.0	130.0D	44.0			
	200	GORK	41	F	1135.1	1136.2	22.0	6.0			
	200	GORK			1135.1	1155.1		15.0			
	2800	OTTA	22	GRF	1139.0	1146.0	21.0	19.0	9.5		
	1415	ATHN	4	S/F	1139.1	1146.1	22.7	38.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1139.1	1146.3	22.7	29.0			QL=6 ST=2 TYP=3
	2950	GORK	22	GRF	1139.8	1149.0	17.8	20.0			
	2650	DWIN	1	S	1140.0	1147.0	20.0	30.0	20.0		
	930	BORD	3	S	1141.0	1143.7	11.0	22.0	5.0		
	950	GORK	2	S/F	1141.6	1146.3	9.4	17.0			
	610	SGMR	47	GB	1142.0	1146.6	8.1	169.0			QL=6 ST=2 TYP=5
	650	GORK	46	C	1142.7	1145.5	7.0	165.0			
	650	GORK			1142.7	1146.8		180.0			
	536	ONDR	27	RF	1142.8	1146.8	11.8	52.0	40.0		
	410	SGMR	47	GB	1143.0	1144.8	9.3	150.0			QL=6 ST=2 TYP=5
	9400	HUAN	20	GRF	1212.0	1223.0	30.9	10.4	4.3		0
	610	SGMR	4	S/F	1247.8	1249.1	3.2	37.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1248.6	1248.6	.2	13.0			QL=6 ST=2 TYP=3
	3000	POTS	3	S	1251.0	1252.5	4.0	91.0			
	6100	KISV	3	S	1251.0	1252.9	2.5	285.0			
	9400	HUAN	3	S	1251.5	1253.1U	2.9	112.8	28.5		0
	2695	ATHN	47	GB	1251.6	1252.5	6.9	88.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	1251.6	1252.5	6.0	430.0			QL=6 ST=2 TYP=5
	8800	ATHN	49	GB	1251.6	1252.5	6.0	520.0			QL=6 ST=2 TYP=6
	2800	OTTA	3	S	1252.0	1252.5	3.5	102.0	25.6		
	1470	POTS	3	S	1252.0	1252.5	4.5	20.0			
	9500	POTS	3	S	1252.0	1252.7	3.0	480.0			
	8400	BERN	47	GB	1252.0	1252.8	1.0	542.0			
	1415	ATHN	8	S	1252.1	1252.5	1.5	21.0			QL=6 ST=2 TYP=3
	4995	SGMR	47	GB	1252.1	1252.8	1.2	300.0			QL=6 ST=2 TYP=5
	15000	KISV	47	GB	1252.2	1252.8U	3.0	580.0D			
	35000	BERN	3	S	1252.3	1252.8	1.0	461.0			
	8800	SGMR	47	GB	1252.3	1252.8	.8	390.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	11800	BERN	47	GB	1252.3	1252.8	1.0	681.0			
	19600	BERN	47	GB	1252.3	1252.8	1.0	571.0			
	2695	SGMR	47	GB	1252.5	1252.6	.6	87.0			QL=6 ST=2 TYP=5
	92500	BERN	3	S	1252.5	1252.8	2.0	198.0D			
	15400	SGMR	47	GB	1252.6	1252.8	.2	92.0			QL=6 ST=2 TYP=5
	2650	DWIN	1	S	1253.0	1253.0	3.0	90.0	40.0		
	6100	KISV	29	PBI	1253.0	1253.4	6.0	30.0			
	9400	HUAN	29	PBI	1254.4	1254.4	38.1	38.2	13.7		0
	113	POTS	4	S/F	1331.6	1331.7	.5	350.0	20.0		III
	113	POTS	8	S	1345.5	1345.6	.7	250.0	80.0		III
	536	ONDR	27	RF	1345.5	1349.5	12.9	11.0	6.0		
	113	POTS	4	S/F	1457.4	1457.8	11.8	3500.0	1000.0		III
	234	POTS	4	S/F	1457.5	1457.7	.7	140.0	30.0		III
	2650	DWIN	1	S	1524.0	1524.0	2.0	12.0	5.0		
	2800	OTTA	1	S	1524.0	1524.5	6.0	9.0	4.0		
	410	SGMR	47	GB	1824.8	1825.0	.3	60.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1824.8	1825.1	1.3	79.0			QL=6 ST=2 TYP=5
	610	SGMR	8	S	1824.8	1825.1	1.3	24.0			QL=6 ST=2 TYP=3
	2800	OTTA	21	GRF	2105.0	2240.0	240.0	7.0	4.4		
	200	HIRA	42	SER	2145.3	2149.3	18.3	800.0			0
	245	SGMR	49	GB	2148.6	2149.5	1.9	510.0			QL=6 ST=2 TYP=6
	245	PALE	49	GB	2148.8	2149.6	2.3	720.0			QL=6 ST=2 TYP=6
	410	SGMR	47	GB	2149.3	2149.5	.8	58.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2149.5	2150.0	1.5	100.0			QL=6 ST=2 TYP=5
	2000	TYKW	45	C	2152.0	2155.3	7.0	31.0	4.0		
	2000	TYKW	21	GRF	2152.0	2240.0	185.0	4.0	2.0		
	1000	TYKW	45	C	2153.0	2154.6	3.0	16.0	6.0		
	3750	TYKW	45	C	2153.0	2155.4	9.0	77.0	19.0		
	9400	TYKW	45	C	2153.0	2155.4	10.0	67.0	18.0		
	9400	TYKW	21	GRF	2153.0	2222.0	60.0	8.0	3.0		
	3750	TYKW	21	GRF	2153.0	2240.0	200.0	6.0	3.0		
	2800	OTTA	4	S/F	2153.0	2155.2	10.0	117.0	20.0		
	100	HIRA	42	SER	2153.3	2201.8	8.9	450.0			WL
	9400	HUAN	4	S/F	2153.5	2155.5	7.3	67.7	35.2		L
	17000	NOBE	1	S	2153.8	2155.5	6.0	44.0			0
	4995	SGMR	47	GB	2154.0	2155.3	4.8	100.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	2154.1	2155.3	5.2	110.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2154.1	2155.3	5.2	100.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	2154.1	2155.3	4.2	52.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	2154.1	2155.5	4.4	80.0			QL=3 ST=2 TYP=5
	15400	PALE	47	GB	2154.1	2155.6	5.2	69.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	2154.3	2154.5	.3	24.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2154.3	2154.5	1.3	23.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	2155.1	2155.3	1.2	58.0			QL=2 ST=2 TYP=5
	15400	SGMR	8	S	2155.1	2155.3	1.5	47.0			QL=3 ST=2 TYP=3
	2000	TYKW	21	GRF	2302.0	2306.0	120.0	2.0	1.0		
	3750	TYKW	21	GRF	2302.0	2335.0	120.0	6.0	3.0		
	1000	TYKW	28	PRE	2302.5	2303.3	6.5	3.0	2.0		
	3750	TYKW	5	S	2303.0	2303.3	1.0	4.0	1.5		
	9395	PEKG	21	GRF	2303.0	2310.2	31.0	19.6	6.8		
	2840	PEKG	21	GRF	2303.0	2323.0	68.0	11.4	3.2		
	200	HIRA	42	SER	2304.0	2310.3	21.0	4600.0			MR
	3750	TYKW	45	C	2305.0	2310.3	11.0	27.0	5.0		
	9400	TYKW	45	C	2307.0	2307.9	5.0	17.0	7.0		
	9395	PEKG	8	S	2307.0	2308.0	1.5	13.6	5.2		
	4995	PALE	4	S/F	2307.8	2310.3	3.8	33.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	2308.0	2310.4	8.0	34.0	6.0		
	2840	PEKG			2308.0	2310.4	6.0	38.5	10.3		
	2695	PENT	4	S/F	2308.5	2310.3	4.0	32.8	13.6		
	1000	TYKW	45	C	2309.0	2311.1	7.0	51.0	19.0		
	610	PALE	49	GB	2309.0	2310.3	6.5	1000.0			QL=6 ST=2 TYP=6
	208	VORO	48	C	2309.0	2311.0	8.0	200.0D			
	100	HIRA	42	SER	2309.1	2309.6	14.3	1400.0			0
	2695	PALE	4	S/F	2309.3	2310.5	2.7	37.0			QL=6 ST=2 TYP=3
	610	MANI	49	GB	2309.5	2310.6	6.0	670.0			QL=6 ST=2 TYP=6
	2695	MANI	20	GRF	2309.5	2310.8	3.5	25.0			QL=6 ST=2 TYP=2
	245	PALE	49	GB	2309.6	2310.3	5.5	620.0			QL=6 ST=2 TYP=6
	4995	MANI	20	GRF	2309.6	2310.6	2.4	33.0			QL=6 ST=2 TYP=2
	1415	PALE	47	GB	2309.6	2310.8	2.7	60.0			QL=6 ST=2 TYP=5
	410	PALE	4	S/F	2310.0	2311.0	2.6	29.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	1415	MANI	8	S	2310.3	2311.3	1.7	100.0			QL=6 ST=2 TYP=3
	9400	TYKW	30	PBI	2312.0		90.0	7.0	3.0		
	1000	TYKW	30	PBI	2316.0		85.0	3.0	1.5		
	1000	TYKW	8	S	2318.6	2318.7	.4	4.0	1.0		
	3750	TYKW	5	S	2322.0	2322.7	3.0	9.0	3.0		
	9400	TYKW	5	S	2322.0	2322.7	2.5	6.0	2.0		
	2000	TYKW	5	S	2322.0	2322.8	3.0	2.0	.7		
	1000	TYKW	5	S	2322.0	2323.0	3.0	2.0	.7		
	208	VORO	4	S/F	2322.0	2323.0	2.0	30.0			
	2695	PENT	2	S/F	2322.0	2323.0	2.0	4.2	2.1		
	245	PALE	8	S	2322.3	2323.5	2.0	32.0			QL=6 ST=2 TYP=3
21	260	ONDR	44	NS	0558.0E	0855.0U	483.0D	67.0			
	9400	TYKW	5	S	0001.5	0002.0	1.5	17.0	4.0		
	245	LEAR	8	S	0012.6	0012.8	.2	31.0			QL=6 ST=2 TYP=3
	2840	PEKG	21	GRF	0114.0	0215.0	139.0	15.4	8.2		
	3750	TYKW	5	S	0114.3	0115.4	2.5	16.0	4.0		
	200	HIRA	46	C	0114.5	0115.1	4.0	5800.0	407.0		WR
	2000	TYKW	45	C	0114.5	0115.6	2.5	17.0	6.0		
	1000	TYKW	5	S	0114.5	0115.8	4.5	47.0	9.0		
	100	HIRA	46	C	0114.6		2.0	10000.0D	281.0D		
	208	VORO	4	S/F	0115.0	0115.0	3.0	200.0D			
	245	PALE	49	GB	0115.0	0115.1	2.5	1000.0			QL=6 ST=2 TYP=6
	245	LEAR	49	GB	0115.0	0115.1	1.6	830.0			QL=6 ST=2 TYP=6
	500	HIRA	3	S	0115.0	0115.3	3.0	45.0	15.0		WR
	2840	PEKG	5	S	0115.0	0115.4	2.0	18.0	12.4		
	9395	PEKG	1	S	0115.0	0115.4	2.0	8.9	3.9		
	410	LEAR	47	GB	0115.1	0115.3	1.7	82.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0115.1	0115.3	2.0	169.0			QL=6 ST=2 TYP=5
	4995	LEAR	8	S	0115.1	0115.5	.9	17.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0115.3	0115.5	.2	13.0			QL=6 ST=2 TYP=3
	610	LEAR	47	GB	0115.3	0115.6	1.7	59.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	0115.3	0115.6	2.3	60.0			QL=6 ST=2 TYP=5
	1415	LEAR	8	S	0115.3	0115.8	1.3	36.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0115.3	0115.8	1.7	36.0			QL=6 ST=2 TYP=3
	2000	TYKW	29	PBI	0117.0		4.0	3.0	1.0		
	1000	TYKW	29	PBI	0119.0		15.0	1.5	.5		
	3750	TYKW	21	GRF	0120.0	0136.0	90.0	3.0	1.5		
	2000	TYKW	21	GRF	0125.0	0225.0	80.0	2.0	1.0		
	2695	PENT	3	S	0125.0	0125.4	2.0	14.2	5.0		
	410	LEAR	8	S	0157.8	0158.0	.3	19.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	0200.0	0215.1	40.0	6.0	2.0		
	610	LEAR	8	S	0203.5	0203.6	.1	22.0			QL=6 ST=2 TYP=3
	9400	TYKW	20	GRF	0211.0	0216.0	30.0	3.0	1.5		
	3750	TYKW	20	GRF	0303.0E	0307.0	35.0D	2.0	1.0D		
	100	GORK	46	C	0306.2	0306.6	1.3	90.0			
	200	GORK	2	S/F	0306.2	0306.8	1.2	15.0			
	100	GORK			0306.2	0307.3		90.0			
	2000	TYKW	21	GRF	0350.0	0425.0	90.0	3.0	1.5		
	3750	TYKW	21	GRF	0400.0	0440.0	85.0	5.0	2.5		
	2950	GORK	21	GRF	0402.3	0419.7	75.6	11.4			
	9400	TYKW	45	C	0413.0	0419.2U	10.0U	15.0	8.0U		INTERFERENCE
	3750	TYKW	45	C	0414.5	0419.1	7.5	21.0	6.0		
	1000	TYKW	5	S	0415.0	0415.8	1.5	8.0	1.5		
	2000	TYKW	45	C	0415.0	0418.7	8.0	9.0	2.5		
	2840	PEKG	21	GRF	0415.0	0425.6	44.0	7.9	2.8		
	950	GORK	21	GRF	0415.1		13.1D				
	9100	GORK	20	GRF	0415.4	0429.0	190.0	7.4			
	950	GORK	1	S	0415.7	0415.9	.6	5.5			
	9395	PEKG	20	GRF	0416.0E	0419.0	48.0D	11.8	5.2		
	2840	PEKG	3	S	0417.0	0418.9	5.0	22.3	10.1		
	1000	TYKW	45	C	0417.3	0418.9	4.0	6.0	2.0		
	2950	GORK	4	S/F	0417.3	0418.9	2.3	12.8			
	650	GORK	4	S/F	0417.7	0418.9	3.3	24.0			
	2695	LEAR	4	S/F	0417.8	0419.0	3.7	22.0			QL=6 ST=2 TYP=3
	950	GORK	2	S/F	0418.0	0418.9	2.7	4.5			
	4995	LEAR	4	S/F	0418.1	0419.1	3.0	16.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0418.6	0418.8	.9	41.0			QL=6 ST=2 TYP=3
	3750	TYKW	29	PBI	0422.0		10.0	3.0	1.5		
	9400	TYKW	29	PBI	0423.0		45.0	4.0	2.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
21	2000	TYKW	20	GRF	0528.0	0600.0	125.0	2.0	1.0		
	2950	GORK	22	GRF	0529.8	1011.5	392.0D	13.9			
	3750	TYKW	20	GRF	0530.0	0608.0	130.0	6.0	3.0		
	9400	TYKW	20	GRF	0543.0	0603.0	85.0	5.0	2.0		
	1000	TYKW	8	S	0629.9	0630.0	.3	12.0	3.0		
	1000	TYKW	8	S	0657.2	0657.3	.3	17.0	6.0		
	1000	TYKW	8	S	0714.2	0714.3	.3	11.0	2.0		
	1000	TYKW	5	S	0715.0	0715.2	.5	9.0	2.0		
	950	GORK	8	S	0731.3	0731.7	1.0	32.0			
	930	BORD	41	F	0731.4	0731.6	1.0	104.0	2.0		
	1000	TYKW	45	C	0731.5	0731.6	.8	44.0	7.0		
	808	ONDR	8	S	0731.8	0731.8	.2	16.0			
	950	GORK	21	GRF	0747.5		253.0D				
	1000	TYKW	8	S	0810.3	0810.4	.3	220.0	30.0		
	950	GORK	8	S	0810.3	0810.5	.4	33.0			
	6100	KISV	21	GRF	0821.2	0825.4	12.0	5.0			
	6100	KISV			0821.2	0830.1		5.0			
	1000	TYKW	45	C	0821.6	0821.7	.4	23.0	8.0		
	930	BORD	41	F	0821.6	0821.8	.5	72.0	2.0		
	808	ONDR	8	S	0821.8	0821.8	.2	22.0			
	930	BORD	8	S	0824.3	0824.4	.2	79.0	2.0		
	1000	TYKW	45	C	0824.3	0824.4	.7	60.0	13.0		
	808	ONDR	8	S	0824.7	0824.7	.1	90.0			
	3750	TYKW	5	S	0825.0	0825.5	5.0	4.0	1.5		
	9100	GORK	21	GRF	0837.6	1009.0	130.0D	11.9			
	245	LEAR	8	S	0902.0	0902.1	.1	27.0			QL=6 ST=2 TYP=3
	930	BORD	8	S	0925.6	0925.6	.1	14.0	1.0		
	930	BORD	46	C	0938.0	0939.0	2.0	29.0	4.0		
	950	GORK	2	S/F	0938.6	0939.0	2.0	12.0			
	950	GORK	4	S/F	0942.5	0948.0	7.5	14.0			
	950	GORK	4	S/F	0942.6	0948.0	7.4	13.0			
	650	GORK	1	S	0942.9	0948.4	6.9	3.0	1.5		
	950	GORK	8	S	1004.4	1005.1	1.5	25.0			
	930	BORD	46	C	1004.6	1005.2	1.0	77.0	8.0		
	6100	KISV	2	S/F	1009.4	1009.7		6.0			
	9500	POTS	3	S	1009.5	1009.8	1.5	21.0			
	15000	KISV	2	S/F	1009.5	1009.9	1.5	37.0			
	9100	GORK	3	S	1009.6	1009.8	.9	29.8			
	4995	ATHN	4	S/F	1058.0	1100.5	2.6	2.0			QL=6 ST=3 TYP=3
	8800	ATHN	8	S	1100.3	1100.5	.3	40.0			QL=6 ST=3 TYP=3
	2800	OTTA	260	FAL	1120.0	1320.0	120.0	-9.6	-4.8		
	536	ONDR	8	S	1158.2	1158.2	.1	21.0			
	245	SGMR	49	GB	1308.6	1308.6	.4	690.0			QL=6 ST=3 TYP=6
	410	SGMR	47	GB	1308.6	1308.8	.4	110.0			QL=6 ST=2 TYP=5
	33	UPIC	4	S/F	1308.7	1309.2	1.3				
	29	UPIC	4	S/F	1308.8	1309.3	.7				
	536	ONDR	8	S	1308.9	1308.9	.1	8.0			
	245	SGMR	47	GB	1345.5	1345.6	.3	300.0			QL=6 ST=3 TYP=5
	234	POTS	8	S	1345.5	1345.6	.2	775.0	260.0		III
	410	SGMR	47	GB	1351.5	1351.6	.3	110.0			QL=6 ST=2 TYP=5
	536	ONDR	8	S	1351.7	1351.7	.1	8.0			
	2800	OTTA	1	S	1618.0	1618.5	1.0	4.4	2.2		
	930	BORD	41	F	1639.8	1639.9	1.2	36.0	1.0		
	2800	OTTA	40	F	1640.0	1640.9	7.0	11.0			
	2800	OTTA	21	GRF	1640.0	1720.0	135.0	13.2	6.6		
	9400	HUAN	21	GRF	1643.8	1723.5	141.3	10.2	8.3		0
	4995	ATHN	8	S	1644.3	1645.6	2.0	10.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	1644.8	1645.3	1.5	7.0			QL=6 ST=2 TYP=3
	2800	OTTA	3	S	1714.0	1715.1	4.0	51.0	12.8		
	2695	ATHN	8	S	1714.1	1715.1	1.7	45.0			QL=5 ST=2 TYP=3
	1415	ATHN	47	GB	1714.1	1715.3	1.7	51.0			QL=5 ST=2 TYP=5
	2695	SGMR	47	GB	1714.6	1715.1	.7	51.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	1714.8	1715.1	1.2	48.0			QL=6 ST=2 TYP=3
	930	BORD	46	C	1814.0	1815.4	11.0	176.0	5.0		
	9400	HUAN	45	C	1815.4	1820.9	9.2	174.2	53.7		L
	2800	OTTA	45	C	1817.0	1821.2	10.0	44.0	16.6		
	610	SGMR	47	GB	1817.3	1817.8	1.0	410.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1817.5	1818.0	1.0	57.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1817.5	1818.0	5.6	70.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1817.5	1818.1	6.1	50.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
21	2695	SGMR	8	S	1818.0	1819.0	1.0D	39.0			QL=6 ST=2 TYP=3
	2650	DWIN	2	S/F	1818.0	1821.0	10.0	40.0	20.0		
	15400	SGMR	47	GB	1820.3	1821.3	6.7	51.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	1821.0	1821.5	4.6	47.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1821.0	1821.5	1.6	42.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	1821.0	1821.5	4.6	89.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1821.0	1821.5	4.6	200.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	1821.0	1823.1	4.6	54.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1822.6	1822.8	1.7	52.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1822.6	1822.8	.2	39.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1822.6	1823.3	.9	219.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	1822.8	1823.3	1.5	230.0			QL=6 ST=2 TYP=5
	610	PALE	8	S	1823.0	1823.1	1.1	11.0			QL=6 ST=2 TYP=3
	2800	OTTA	29	PBI	1827.0	1827.0	20.0	6.0	2.8		
	2800	OTTA	1	S	1947.2	1947.5	1.0	4.4	1.6		
	1000	TYKW	5	S	2117.4	2117.7	.6	7.0	2.5		
	1000	TYKW	21	GRF	2130.0	2210.0	190.0	4.0	2.0		
	3750	TYKW	21	GRF	2130.0	2240.0	240.0	4.0	2.0		
	2000	TYKW	20	GRF	2137.0	2155.0	140.0	5.0	2.0		
	1000	TYKW	20	GRF	2300.0	2320.0	50.0	1.5	.7		
	245	LEAR	47	GB	2343.0	2343.1	.5	70.0			QL=6 ST=2 TYP=5
22	245	LEAR	43	NS	0242.1	0243.0	5.7	92.0			QL=6 ST=2 TYP=1
	245	LEAR	44	NS	2319.0E	2341.8	22.8D	19.0			QL=6 ST=2 TYP=1
	2695	PENT	29	PBI	0001.0	0001.0	35.0	7.0	3.0		
	1000	TYKW	8	S	0011.5	0011.6	.3	1.5	.5		
	1000	TYKW	5	S	0013.3	0013.6	1.0	1.5	.5		
	2000	TYKW	5	S	0013.3	0013.6	1.0	3.0	1.0		
	3750	TYKW	5	S	0013.3	0013.6	1.0	1.5	.5		
	610	LEAR	8	S	0013.5	0013.6	.1	11.0			QL=6 ST=2 TYP=3
	2840	PEKG	5	S	0015.0	0015.7	3.0	28.6	10.7		
	1000	TYKW	45	C	0015.4	0015.8	1.5	8.0	1.5		
	3750	TYKW	5	S	0015.4	0015.8	2.0	20.0	4.0		
	2000	TYKW	5	S	0015.4	0015.8	1.6	16.0	6.0		
	2695	LEAR	8	S	0015.6	0015.8	.2	28.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0015.6	0015.8	.2	13.0			QL=6 ST=2 TYP=3
	2695	PENT	3	S	0015.6	0015.9	2.0	21.6	5.4		
	2000	TYKW	29	PBI	0017.0		4.0	2.5	1.0		
	2695	PENT	20	GRF	0038.0	0042.0	25.0	3.6	1.6		
	245	LEAR	8	S	0110.8	0111.0	.3	17.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0144.1	0144.1	.2	19.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0224.3	0224.3	.2	239.0			QL=6 ST=2 TYP=5
	3750	TYKW	5	S	0228.5	0229.2	2.0	1.0	.3		
	3750	TYKW	5	S	0232.0	0233.4	5.0	1.5	.5		
	245	LEAR	47	GB	0237.3	0237.5	.3	52.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0237.3	0237.5	.3	10.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0241.0	0247.0	15.0	1.5	.5		
	410	LEAR	8	S	0247.8	0248.3	.7	13.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0326.5	0326.7	.8	2.0	.7		
	1000	TYKW	8	S	0326.6	0326.7	.2	13.0	3.0		
	3750	TYKW	5	S	0326.6	0326.8	.8	4.0	1.5		
	2950	GORK	21	GRF	0330.0E	0357.6	407.0D	8.1			
	9100	GORK	21	GRF	0336.0E		430.0D				
	500	HIRA	45	C	0510.4	0512.5	5.0	65.0	10.0		0
	950	GORK	3	S	0510.5	0513.0	13.0	17.0			
	410	LEAR	47	GB	0510.8	0512.8	2.3	139.0			QL=6 ST=2 TYP=5
	2840	PEKG	5	S	0511.0	0512.9	8.0	24.5	13.0		
	200	GORK	4	S/F	0511.5	0512.6	2.5	40.0D			
	3750	TYKW	5	S	0511.5	0512.9	2.5	31.0	9.0		
	9400	TYKW	5	S	0511.5	0512.9	2.5	179.0	32.0		
	2000	TYKW	5	S	0511.5	0513.1	5.5	18.0	6.0		
	200	HIRA	46	C	0511.6	0512.3	1.7	13500.0	950.0		0
	1000	TYKW	45	C	0511.7	0513.1	6.3	23.0	8.0		
	35000	NAGO	5	S	0512.0	0512.0	2.0	65.0			
	100	GORK	3	S	0512.0	0512.6	1.1	90.0D			
	19600	BERN	3	S	0512.0	0512.8	2.0	102.0			
	8400	BERN	3	S	0512.0	0512.8	2.0	190.0			
	9100	GORK	3	S	0512.0	0512.8	2.8	151.0			
	11800	BERN	3	S	0512.0	0512.8	2.0	237.0			
	9395	PEKG	5	S	0512.0	0512.9	6.0	172.0	52.0		

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	2950	GORK	3	S	0512.0	0513.0	3.0	17.5			
	650	GORK	3	S	0512.0	0513.0	4.9	13.0	6.5		
	100	HIRA	46	C	0512.1	0512.3	1.5	1300.0	440.0		0
	245	LEAR	49	GB	0512.1	0513.1	1.2	540.0			QL=6 ST=2 TYP=6
	29	UPIC	4	S/F	0512.1	0513.3	1.3				
	17000	NOBE	4	S/F	0512.2	0512.9	2.5	182.0			0
	4995	LEAR	47	GB	0512.3	0512.8	1.0	51.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0512.3	0512.8	1.3	189.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0512.3	0512.8	1.3	200.0			QL=6 ST=2 TYP=5
	2695	MANI	4	S/F	0512.3	0513.5	2.7	20.0			QL=6 ST=2 TYP=3
	4995	MANI	47	GB	0512.3	0513.5	2.2	75.0			QL=6 ST=2 TYP=5
	33	UPIC	4	S/F	0512.4	0513.1	1.3				
	2695	LEAR	8	S	0512.5	0513.0	.6	20.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	0512.5	0513.5	2.0	119.0			QL=6 ST=2 TYP=5
	610	MANI	20	GRF	0512.5	0513.5	2.0	17.0			QL=6 ST=2 TYP=2
	1415	MANI	4	S/F	0512.5	0513.5	4.5	24.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0512.6	0513.0	1.0	18.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0512.6	0513.1	1.2	24.0			QL=6 ST=2 TYP=3
	3750	TYKW	29	PBI	0514.0		8.0	4.0	1.5		
	9400	TYKW	29	PBI	0514.0		35.0	5.0	1.5		
	650	GORK	29	PBI	0516.9	0516.9	8.3	2.5			
	2000	TYKW	29	PBI	0517.0		9.0	2.5	1.0		
	1000	TYKW	29	PBI	0518.0		10.0	2.5	1.0		
	1000	TYKW	45	C	0630.0	0634.4	4.4U	34.0	4.0		
	3750	TYKW	21	GRF	0720.0	0745.0	60.0	3.0	1.5		
	9395	PEKG	20	GRF	0729.0	0749.0	82.0	7.9	2.7		
	2000	TYKW	21	GRF	0730.0	0732.0	45.0	1.5	.7		
	2840	PEKG	23	GRF	0730.0	0822.2	107.0	10.8	3.6		
	6100	KISV	20	GRF	0733.0	0800.0	33.0	7.0			
	2840	PEKG	1	S	0735.0	0737.0	5.0	7.7	1.9		
	2000	TYKW	5	S	0736.0	0737.0	3.0	9.0	2.0		
	3750	TYKW	5	S	0736.5	0737.0	1.5	3.0	1.0		
	3000	POTS	1	S	0736.5	0737.1	1.5	6.0			
	2950	GORK	1	S	0736.7	0737.0	1.2	5.5			
	1470	POTS	1	S	0736.7	0737.3	1.8	5.0			
	610	LEAR	8	S	0805.1	0805.3	.7	25.0			QL=6 ST=2 TYP=3
	1000	TYKW	45	C	0805.3	0805.8	.7	5.0	1.0		
	6100	KISV	2	S/F	0833.0	0833.8	2.5	7.0			
	2840	PEKG	20	GRF	0840.0	0841.7	13.0	4.6	1.8		
	2000	TYKW	5	S	0841.5	0841.7	1.0	4.0	1.5		
	2950	GORK	1	S	0841.6	0842.0	1.0	4.1			
	6100	KISV	40	F	0847.0	0847.6	2.0	6.0			
	204	IZMI	4	S/F	0926.0	0926.2	.7	320.0	115.0		
	234	POTS	4	S/F	0926.1	0926.2	.5	220.0	7.0		III
	245	LEAR	47	GB	0926.1	0926.3	.5	300.0			QL=6 ST=2 TYP=5
	260	ONDR	42	SER	0926.3	0926.6	17.0	98.0			
	9100	GORK	2	S/F	0927.0	0927.2	.6	13.0	6.5		
	245	LEAR	47	GB	0928.8	0929.5	.8	60.0			QL=6 ST=2 TYP=5
	204	IZMI	8	S	0941.2	0941.2	.2	130.0	50.0		
	6100	KISV	2	S/F	1024.1	1024.4	2.0	7.0			
	930	BORD	40	F	1623.0	1653.6	79.0	144.0	16.0		
	2800	OTTA	21	GRF	1625.0	1755.0	575.0D	46.0			
	9400	HUAN	22	GRF	1636.5	1732.0	147.5	36.6	29.6		0
	2650	DWIN	45	C	1640.0	1659.0	50.0	330.0	150.0		
	2800	OTTA	46F	C	1645.5	1700.0	65.0	410.0	93.0		
	2695	PALE	47	GB	1650.1	1650.5	8.5	100.0			QL=6 ST=2 TYP=5
	610	PALE	49	GB	1651.0	1651.1	7.6	110.0			QL=6 ST=2 TYP=6
	410	PALE	47	GB	1651.1	1651.1	7.5	79.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	1651.1	1651.5	7.5	47.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	1651.1	1652.0	7.5	34.0			QL=6 ST=2 TYP=5
	8800	PALE	4	S/F	1651.1	1652.1	7.5	20.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1651.3	1652.1	1.0	17.0			QL=6 ST=2 TYP=3
	245	PALE	49	GB	1652.6	1654.5	3.0	600.0			QL=6 ST=2 TYP=6
	2695	SGMR	47	GB	1657.1E	1659.6	18.0D	380.0			QL=3 ST=2 TYP=5
	1415	SGMR	47	GB	1657.1E	1700.0	17.7D	219.0			QL=3 ST=2 TYP=5
	4995	SGMR	47	GB	1657.1E	1700.3	17.7D	119.0			QL=3 ST=2 TYP=5
	410	SGMR	47	GB	1657.1E	1700.8	6.7D	200.0			QL=3 ST=2 TYP=5
	9400	HUAN	3	S	1657.5	1700.2	9.8	43.9	30.5		0
	610	SGMR	47	GB	1657.6E	1659.3	3.2D	160.0			QL=3 ST=2 TYP=5
	8800	SGMR	4	S/F	1658.5E	1700.1	10.3D	44.0			QL=3 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	410	PALE	47	GB	1658.6	1658.6	6.7	110.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	1658.6	1658.6	11.0	200.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	1658.6	1658.8	16.2	139.0			QL=6 ST=2 TYP=5
	8800	PALE	49	GB	1658.6	1658.8	16.2	73.0			QL=6 ST=2 TYP=6
	15400	PALE	47	GB	1658.6	1658.8	16.2	40.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	1658.6	1658.8	16.2	160.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	1658.6	1658.8	16.2	320.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	1659.6	1701.6	5.9	42.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1700.8E	1701.1	.3D	20.0			QL=3 ST=2 TYP=5
	610	SGMR	4	S/F	1717.6	1721.3	14.0	30.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1718.3	1720.3	9.0	100.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1718.3	1722.3	10.5	80.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	1718.5	1719.3	11.8	77.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	1718.5	1719.6	9.8	98.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	1718.6	1720.6	10.2	62.0			QL=6 ST=2 TYP=5
	15400	PALE	4	S/F	1718.6	1721.3	11.7	29.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1718.8	1721.3	11.5	34.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1720.1	1720.6	.5D	31.0			QL=6 ST=2 TYP=3
	1000	TYKW	21	GRF	2300.0	0020.0	175.0	3.0	1.5		
	2000	TYKW	5	S	2314.0	2314.7	3.0	1.5	.5		
	1000	TYKW	45	C	2350.0	2357.5	10.0D	3.5	1.5D		
	3750	TYKW	45	C	2352.0	2357.4	8.0D	19.0	6.0D		
	2000	TYKW	45	C	2353.0	2357.5	8.0	32.0	13.0		
	9400	TYKW	20	GRF	2353.0	2358.0	120.0	4.0	2.0		
	2695	PENT	46F	C	2353.0	2357.5	8.0	48.6	19.0		
	1415	PALE	8	S	2353.6	2353.8	1.2	19.0			QL=6 ST=2 TYP=3
23	245	PALE	43	NS	1645.0	2126.1	720.0D	139.0			QL=6 ST=2 TYP=1
	2000	TYKW	30	PBI	0001.0		95.0	7.0	2.0		
	3750	TYKW	30	PBI	0003.0E		120.0D	4.0D	1.5D		
	2000	TYKW	5	S	0037.0	0042.0	22.0	2.5	1.0		
	3750	TYKW	20	GRF	0038.0	0042.0	65.0	3.0	2.0		
	245	LEAR	4	S/F	0122.3	0122.6	3.3	13.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	0311.5	0315.0	30.0	2.0	1.0		
	2950	GORK	1	S	0612.0	0613.8	3.0	4.0			
	2000	TYKW	5	S	0613.0	0613.8	1.5	9.0	3.0		
	2840	PEKG	1	S	0613.0	0614.0	2.0	5.3	.4		
	9395	PEKG	1	S	0613.0	0616.7	7.0	4.0	2.2		
	3750	TYKW	5	S	0613.3	0613.7	1.0	3.0	1.0		
	4995	LEAR	8	S	0613.3	0613.8	.8	5.0			QL=6 ST=2 TYP=3
	6100	KISV	1	S	0613.4	0613.8	1.0	3.0			
	1000	TYKW	5	S	0613.5	0614.0	1.5	2.0	.7		
	2695	LEAR	8	S	0613.6	0614.0	1.0	7.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0613.8	0614.0	1.0	9.0			QL=6 ST=2 TYP=3
	2000	TYKW	29	PBI	0614.5		10.0	1.0	.5		
	2840	PEKG	20	GRF	0708.0	0713.5	15.0	4.9	1.2		
	9395	PEKG	20	GRF	0710.0	0715.5	20.0	4.0	1.6		
	930	BORD	41	F	0758.0	0758.2	.4	29.0	2.0		
	930	BORD	41	F	0847.6	0847.8	.4	23.0	2.0		
	1470	POTS	29	PBI	1016.5	1017.7	12.0	11.0			
	3000	POTS	3	S	1016.7	1017.7	3.3	9.0			
	650	GORK	4	S/F	1016.9	1017.0	4.6	17.0			
	950	GORK	1	S	1016.9	1017.7	4.2	37.0			
	2950	GORK	3	S	1017.0	1017.7	6.2	21.3			
	536	ONDR	41	F	1027.2	1027.8	1.3	21.0			
	808	ONDR	8	S	1232.0	1232.2	.3	12.0			
	2800	OTTA	1	S	1504.0	1504.7	1.0	3.6	1.4		
	33	UPIC	4	S/F	1509.7	1510.9	1.5				
	29	UPIC	2	S/F	1510.4	1510.8	.6				
24	2000	TYKW	20	GRF	0115.0	0119.0	35.0	2.0	1.0		
	2695	PENT	20	GRF	0115.0	0117.0	11.0	2.6	1.3		
	650	GORK	4	S/F	0701.1	0701.6	1.0	41.0			
	950	GORK	8	S	0701.5	0701.6	.7	38.0			
	3750	TYKW	5	S	0733.0	0733.2	.6	5.0	1.5		
	1000	TYKW	8	S	0733.1	0733.2	.3	1.0	.3		
	2000	TYKW	5	S	0733.1	0733.2	.5	4.0	1.0		
	2800	OTTA	1	S	1717.5	1718.0	3.0	1.8	0.9		
	2800	OTTA	20	GRF	2025.0	2100.0	120.0	2.8	1.4		
	245	LEAR	4	S/F	2331.0	2331.8	3.0	27.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	245	LEAR	44	NS	2318.0E	2325.0		39.0			QL=6 ST=3 TYP=1
	245	LEAR	44	NS	2318.0E	2325.0	77.1D	39.0			QL=6 ST=3 TYP=1
	3750	TYKW	21	GRF	0343.0	0415.0	70.0	2.0	1.0		RAIN
	2000	TYKW	20	GRF	0345.0	0410.0	60.0	1.0	.5		
	3750	TYKW	5	S	0449.0	0449.7	2.0	1.5	.5		
	410	LEAR	47	GB	0843.1	0843.6	.9	52.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	0843.1	0843.6	.9	6.0			QL=6 ST=2 TYP=3
	536	ONDR	8	S	0843.7	0843.8	.2	11.0			
	260	ONDR	8	S	1005.7	1005.8	.3		6.0		
	2800	OTTA	20	GRF	1100.0E	1310.0	320.0D	4.8			
	245	LEAR	4	S/F	2325.0	2325.0	771.0	39.0			QL=1 ST=2 TYP=3
26	9400	TYKW	45	C	0443.5	0443.8	1.5	15.0	2.0		
	260	ONDR	8	S	0656.8	0656.9	.4	22.0			
	200	GORK	2	S/F	0748.0	0748.3	1.0	6.0			
	1000	TYKW	45	C	0841.8	0842.1	.7	8.0	2.0		
	245	LEAR	8	S	0902.5	0902.6	1.0	47.0			QL=6 ST=2 TYP=3
	260	ONDR	40	F	1155.0	1216.4	21.4U	7.0			
	260	ONDR	41	F	1256.8	1322.5U	25.7D	15.0			
	930	BORD	8	S	1551.3	1551.4	.3	44.0	2.0		
27	33	UPIC	3	S	0719.5	0719.6	.4				
	29	UPIC	1	S	0719.7	0719.8	.3				
	245	LEAR	8	S	0816.6	0816.8	1.2	13.0			QL=6 ST=2 TYP=3
	930	BORD	8	S	1010.7	1010.8	.3	17.0	2.0		
	260	ONDR	8	S	1328.5	1328.5	.2	4.0			
	260	ONDR	8	S	1344.3	1344.3	.3	5.0			
	260	ONDR	8	S	1348.4	1348.4	.1	2.0			
	260	ONDR	41	F	1359.6		5.8	4.0			
	930	BORD	8	S	1539.9	1540.0	.1	29.0	1.0		
	245	PALE	8	S	2344.8	2345.0	1.3	34.0			QL=6 ST=2 TYP=3
28	650	GORK	1	S	0324.2	0324.5	.5	7.0			
	650	GORK	4	S/F	0526.6	0528.0	2.1	5.0			
	2800	OTTA	20	GRF	1100.0E	1220.0	335.0D	6.0			
	930	BORD	8	S	1355.5	1355.6	.2	19.0	2.0		
	930	BORD	8	S	1543.6	1543.9	.4	54.0	1.0		
	9400	HUAN	20	GRF	1827.1	1921.5	68.5	9.3	4.4		0
	9400	HUAN	4	S/F	2028.5	2029.3	2.9	24.1	5.8		0
29	410	LEAR	8	S	0716.8	0717.0	.3	3.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0716.8	0717.0	.3	15.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0716.8	0717.0	.2D	2.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0720.0	0720.1	1.0	17.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0720.0	0720.1	.1	6.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0720.0	0720.1	.1	8.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	2357.8	2358.6	1.5	18.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	2358.1	2358.6	1.2	6.0			QL=6 ST=2 TYP=3
30	245	LEAR	43	NS	0421.0	0421.1	8.0	60.0			QL=6 ST=2 TYP=1
	2000	TYKW	5	S	0027.0	0027.6	2.0	3.0	1.0		
	245	LEAR	8	S	0148.3	0148.6	.3	11.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	0320.0	0435.0	170.0	4.0	2.0		
	2000	TYKW	20	GRF	0330.0	0435.0	150.0	3.0	1.5		
	9400	TYKW	20	GRF	0340.0	0410.0	80.0	3.0	1.5		
	650	GORK	40	F	0421.2	0425.8	10.0	4.0			
	650	GORK	4	S/F	0807.5	0809.7	3.3	3.0			
	2800	OTTA	240	AR	1120.0	1350.0	150.0	8.2	4.1		
	2800	OTTA	8	S	1327.0	1327.2	.5	2.8			
	9400	HUAN	1	S	1331.1	1335.0	7.0	11.2	5.9		R
	2800	OTTA	1	S	1455.0	1456.5	3.0	2.2	1.0		
	9400	HUAN	22	GRF	1513.2	1523.0	108.5	9.4	5.4		R
	930	BORD	8	S	1554.5	1554.5	.1	23.0	1.0		
	9400	HUAN	22	GRF	1920.5	1925.0	26.8	7.5	3.5		0
31	260	ONDR	43	NS	0640.4	1312.5U	495.0U				
	410	LEAR	47	GB	0441.0	0441.1	1.0	66.0			QL=6 ST=2 TYP=5
	3750	TYKW	20	GRF	0623.0	0627.0	50.0	2.0	1.0		
	33	UPIC	2	S/F	0706.9	0707.4	.8				
	29	UPIC	2	S/F	0707.0	0707.5	.6				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
31	33	UPIC	8	S	1143.6	1143.7	.5				
	29	UPIC	3	S	1143.7	1143.9	.3				
	2800	OTTA	20	GRF	1435.0	1440.0	25.0	2.0	1.0		
	9400	HUAN	1	S	1558.6	1559.1	3.3	5.8	2.3		0
	2800	OTTA	240	R	1810.0	1830.0	20.0	3.0	1.5		
	3750	TYKW	20	GRF	2140.0	2145.0	45.0	3.0	1.5		RAIN
	2800	OTTA	20	GRF	2140.0	2145.0	25.0	3.6	1.5		
	245	LEAR	47	GB	2334.1	2335.8	2.7	100.0			QL=6 ST=2 TYP=5
	3750	TYKW	5	S	2342.0	2342.5	5.0	1.5	.5		

Reports are received routinely from the following observatories:

ATHN = Athens
BERN = Berne
BORD = Bordeaux
CRIM = Crimea
DWIN = Dwingeloo
GORK = Gorky
HARS = Harestua
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
IZMI = IZMIRAN
KISV = Kislovodsk
KRAK = Krakow
LEAR = Learmonth
MANI = Manila
NAGO = Nagoya
NOBE = Nobeyama
ONDR = Ondrejov
OTTA = Ottawa
PALE = Palehua
PEKG = Peking
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagmore Hill
SYDN = Sydney
TORN = Torun
TYKW = Toyokawa
YUNN = Yunnan
TRST = Triste
UPIC = Upice
VORO = Voroshilov

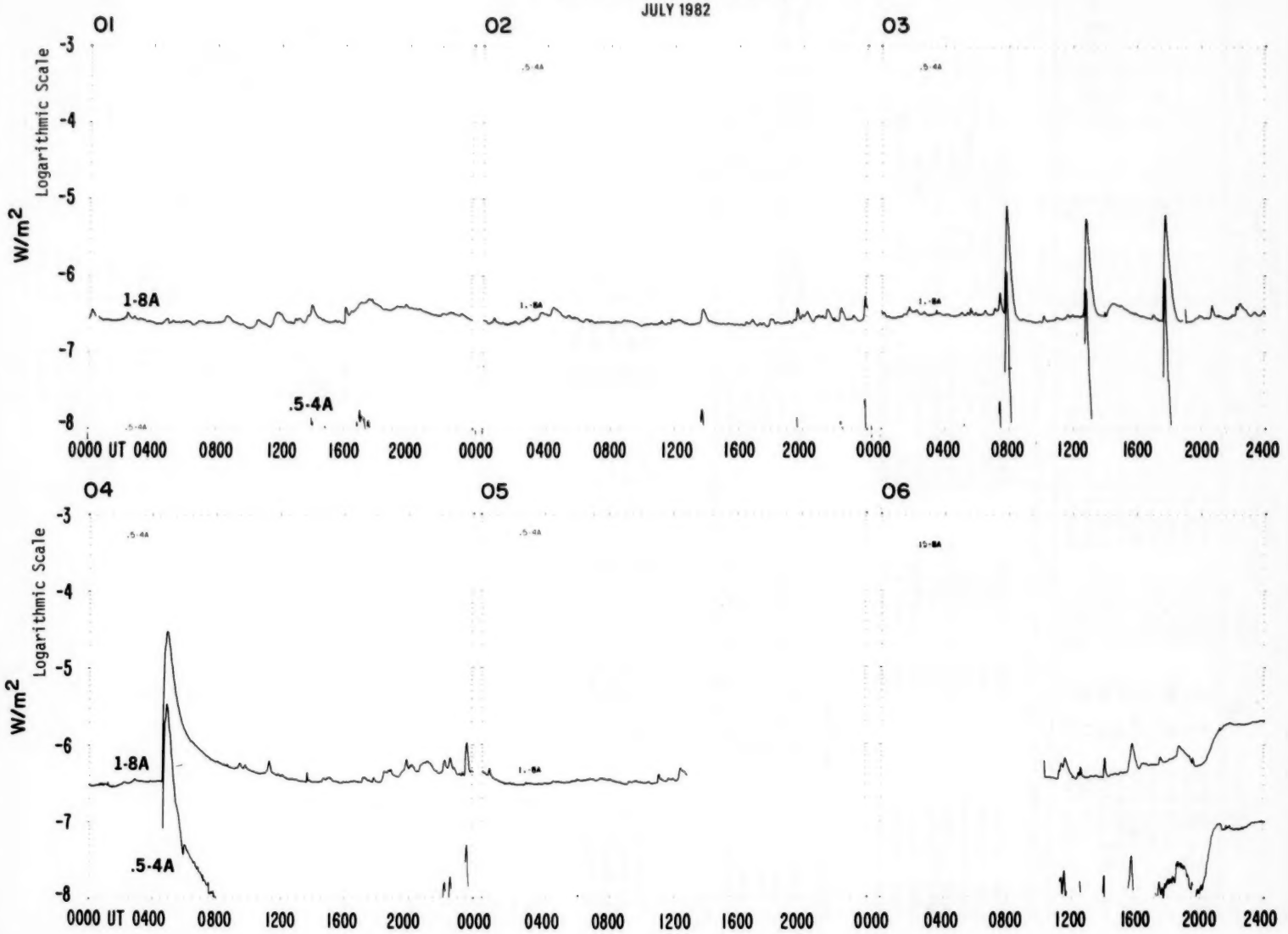
Explanation of Type Code:

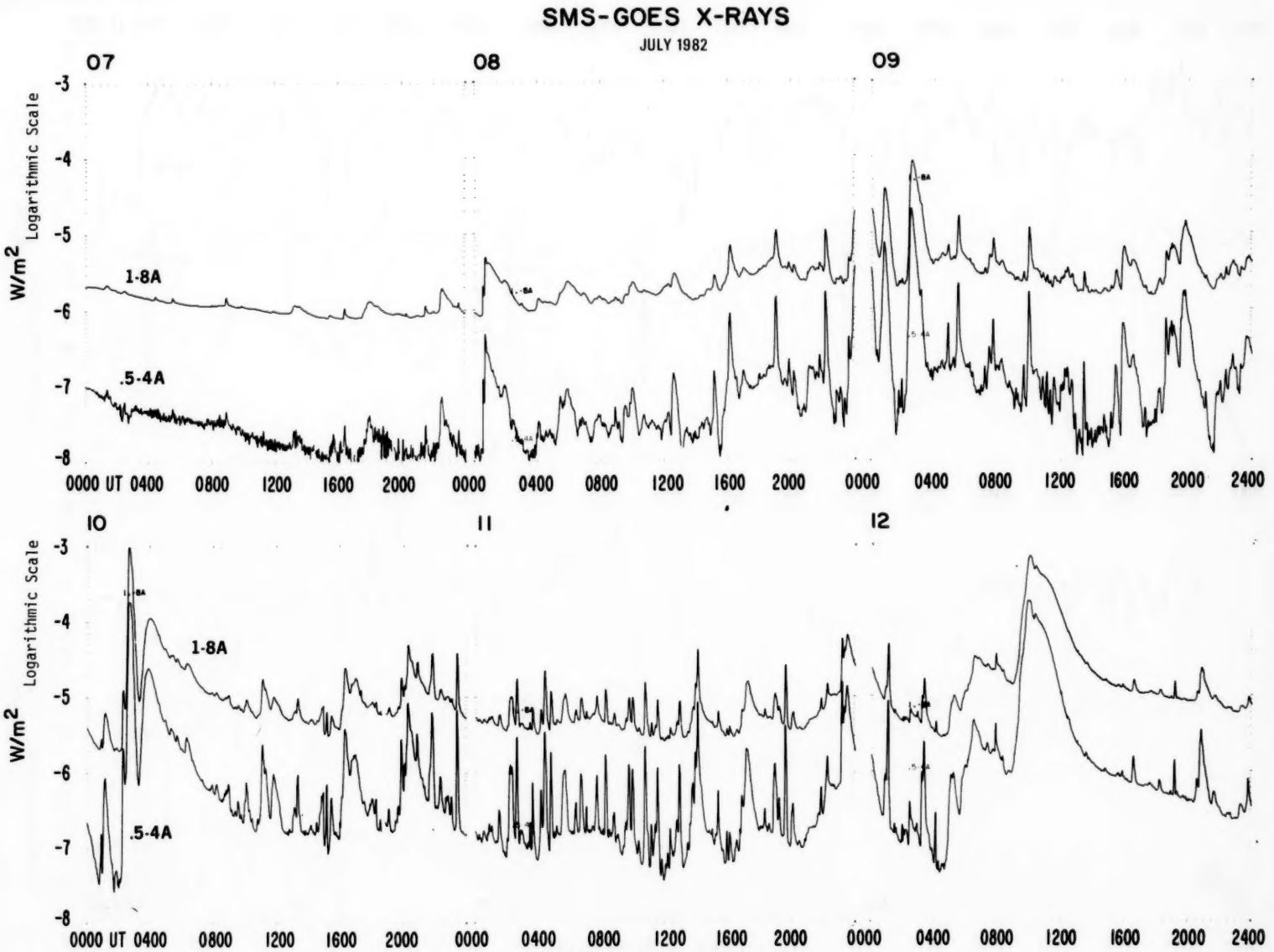
1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
33 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise Storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

1A Simple 1A
3A Simple 2A
21A Simple 3A GRF
2A Simple 1AF
4A Simple 2AF
240 Rise only
240F Rise only F
24P Post Rise
24PF Post Rise F
16A Fall A
260 Fall Only
26F Fall F
27F Rise and Fall F
27AF Rise and Fall AF
31A Post Burst Decrease A
32A Absorption A
46F Complex F

SMS-GOES X-RAYS

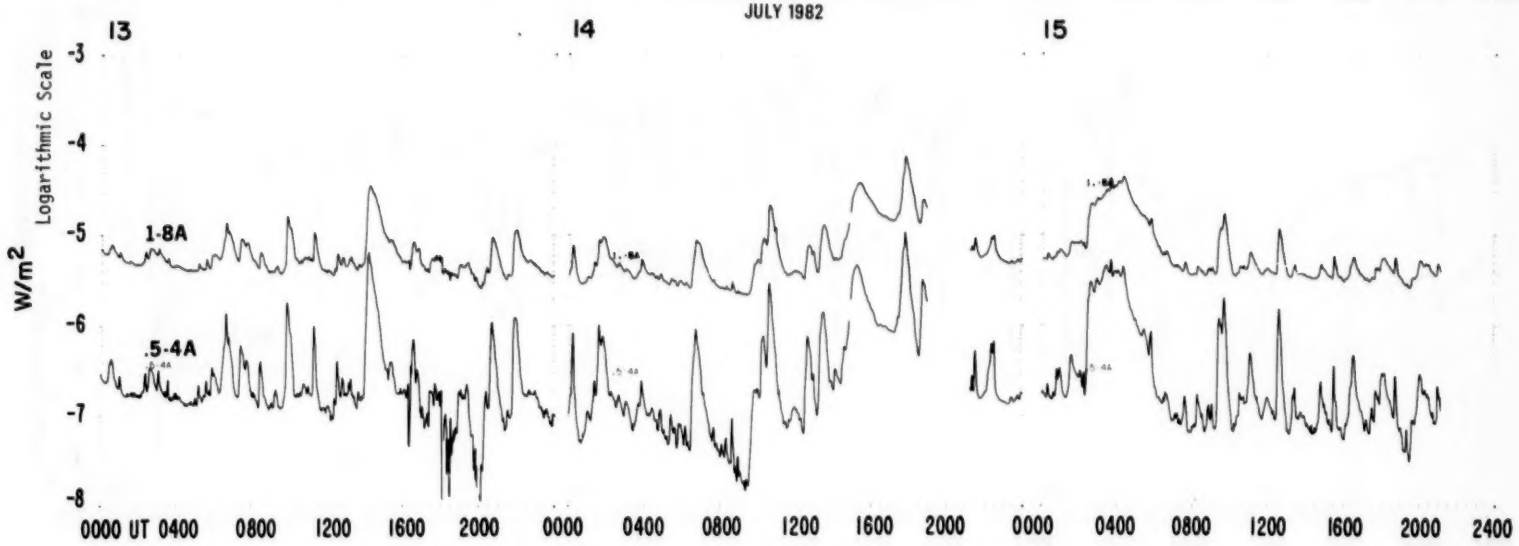
JULY 1982

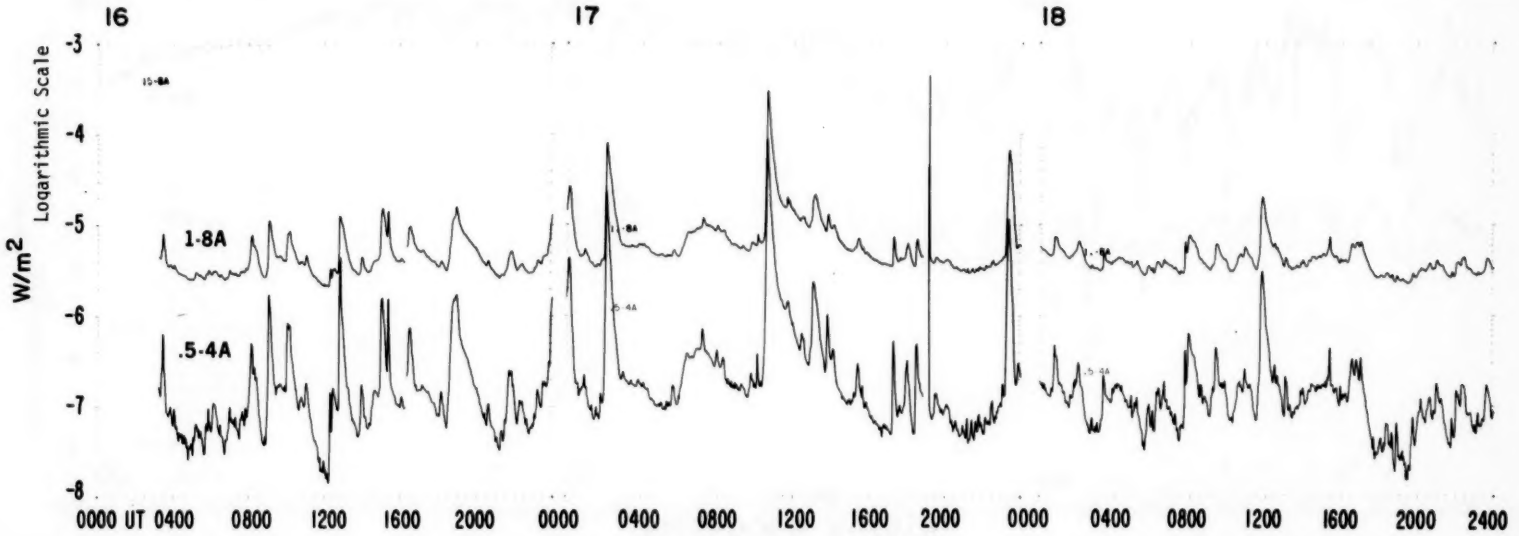



SMS-GOES X-RAYS
JULY 1982
07
08
09
10
11
12
Logarithmic Scale
W/m2
1-8A
.5-4A
-3
-4
-5
-6
-7
-8
0000 UT 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 2400

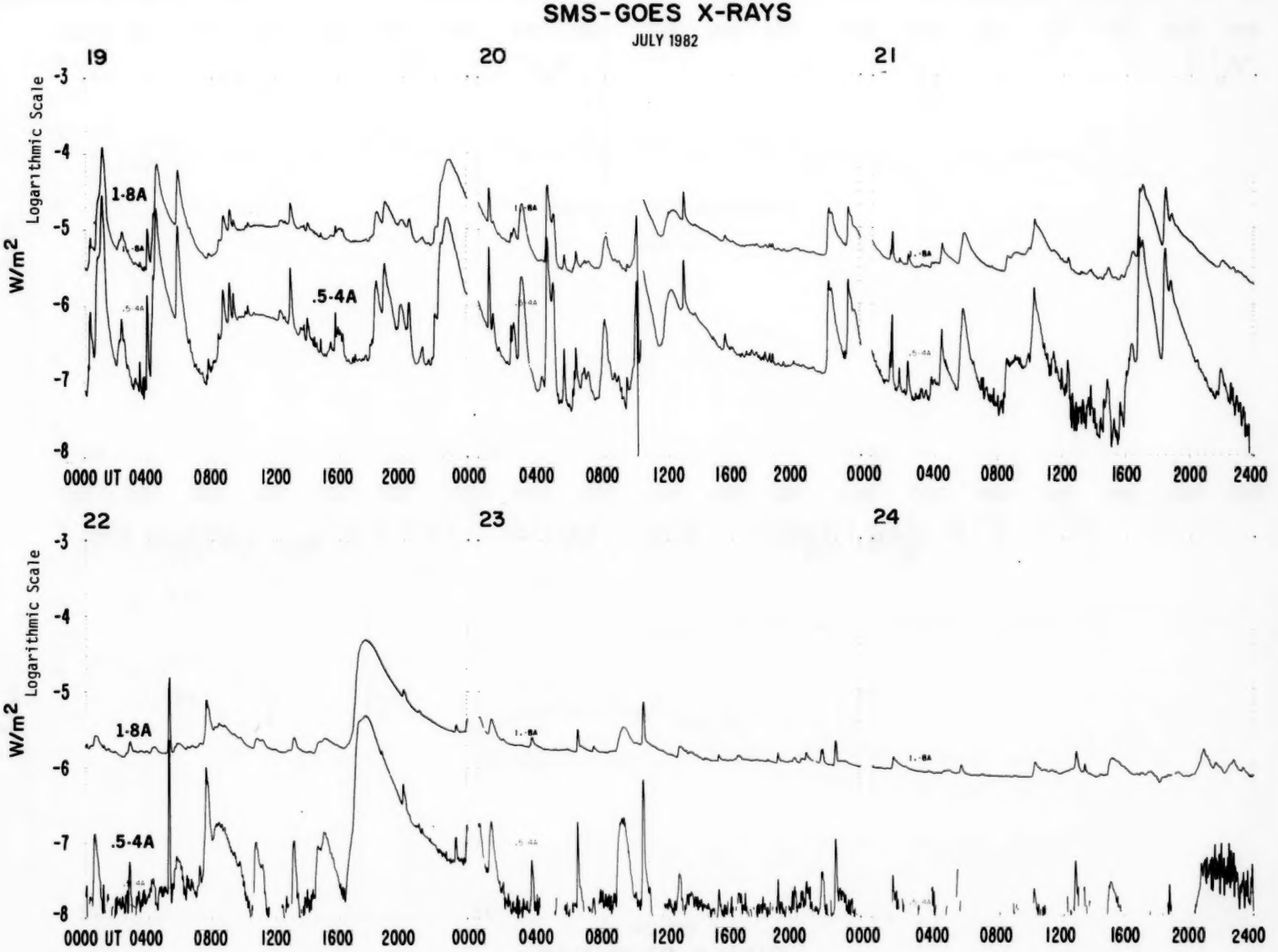
SMS-GOES X-RAYS

JULY 1982



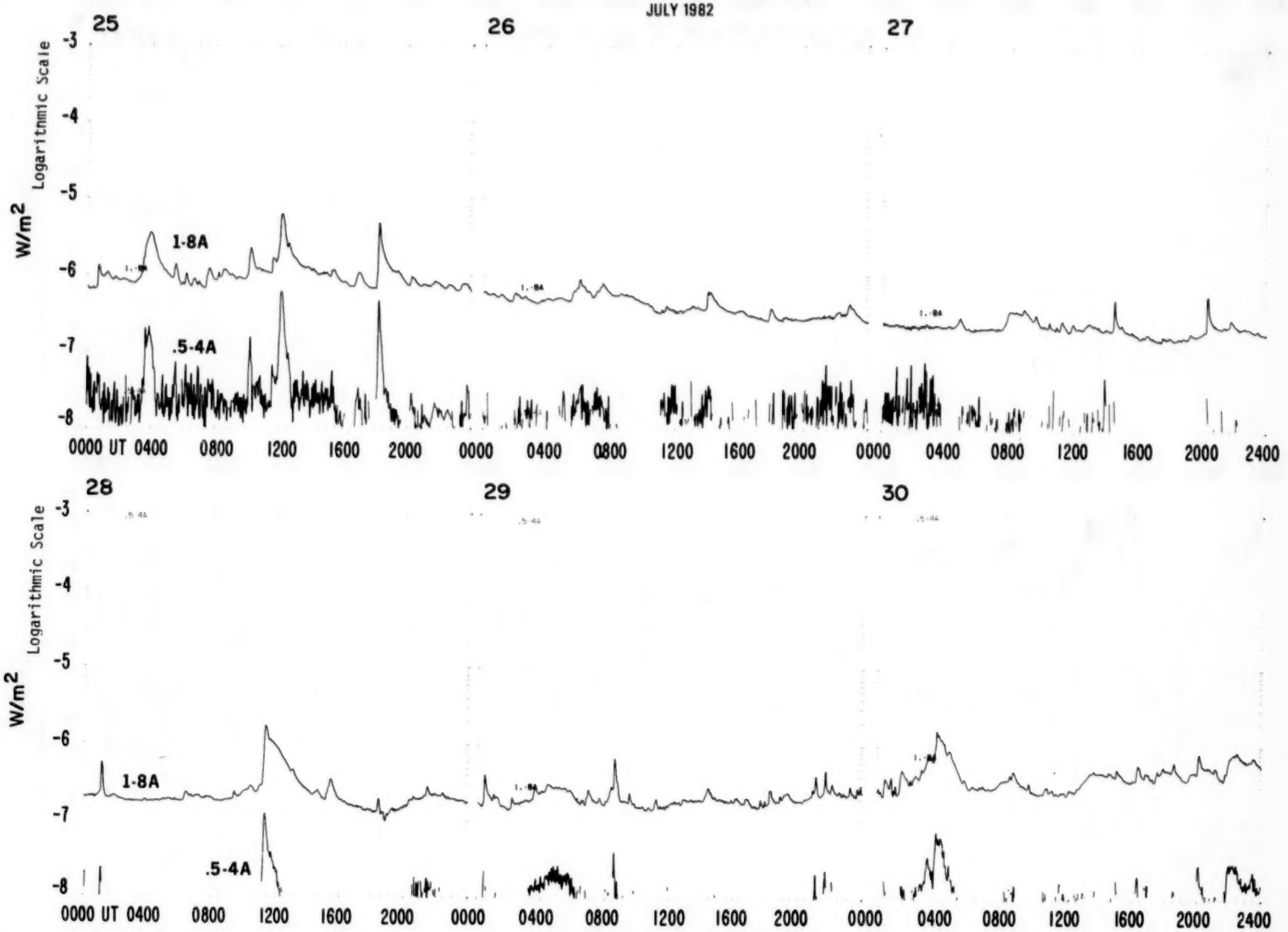


SMS-GOES X-RAYS


SMS-GOES X-RAYS
JULY 1982
19
20
21
22
23
24
Logarithmic Scale
W/m2
-3
-4
-5
-6
-7
-8
1-8A
.5-4A
0000 UT 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 2400

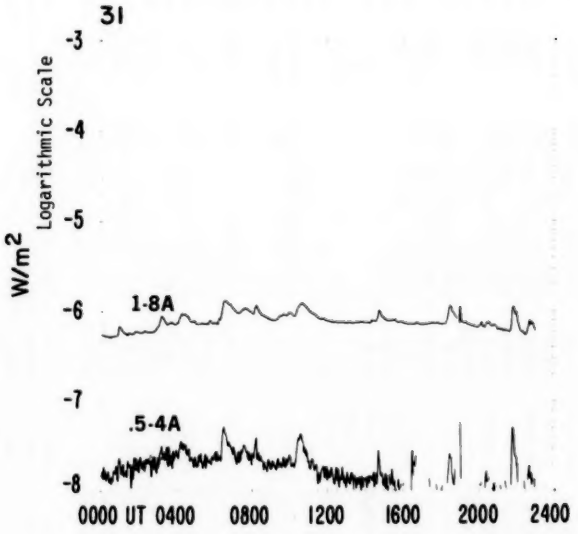
SMS-GOES X-RAYS

JULY 1982



SMS-GOES X-RAYS

JULY 1982



MASS EJECTIONS FROM THE SUN

July 1982

Sta	Day	Observed UT Start	Max	End	Location RA°	R/R_O	Freq or Wavelength	Kind of Event
HARV	Jul 01	1606.0		1611.0			Meter	II
HARV	Jul 01	1617.0		1625.0			Meter	II
CULG	Jul 04	0448.5		0518.5			Meter	II Herringbone
WEIS	Jul 04	0449.6		0505.5			Meter	II
LEAR	Jul 04	0450.5		0504.5			Meter	II
CULG	Jul 04	0453.0		0459.0			Meter	IV
WEND	Jul 05	1255	1300	1306D	078	1.0	H-alpha	S
WEND	Jul 06	0850		1000D	026	1.00-1.14	H-alpha	SP?
CULG	Jul 08	0013.5		0601.0			Meter; dekameter	II Intermittent
ABST	Jul 08	0453	0752	0752	080	1.00	H-alpha	SP
WEND	Jul 08	0615	0638	0640D	079	1.0	H-alpha	S
WEND	Jul 08	0615	0633	0640D	072	1.0	H-alpha	S
WEND	Jul 08	0716	0722	0743	080	1.00-1.04	H-alpha	Flare Loop
WEND	Jul 08	0733	0743	0757	068	1.00-1.09	H-alpha	S
KHAR	Jul 08	0742E		0753D	072	1.00	H-alpha	SP
WEND	Jul 08	0755	0812	0900	080	1.00-1.10	H-alpha	SP
KHAR	Jul 08	0808E	0858	0826D	082	1.00	H-alpha	S
KHAR	Jul 08	0810E		0845D	072	1.00	H-alpha	S
WEND	Jul 08	0913E	0918	0943	082	0.98-1.04	H-alpha	S
KHAR	Jul 08	0942E		0945D	082	1.0	H-alpha	S
WEND	Jul 08	0955	1018	1025	084	0.98-1.05	H-alpha	S
KHAR	Jul 08	1006E		1050D	082	1.00	H-alpha	SP
WEND	Jul 08	1412	1416	1422	074	1.0	H-alpha	S
HARV	Jul 08	2116.0		2120.0			Meter	IV
CULG	Jul 08	2126.0		2130.0			Meter	II
LEAR	Jul 09	0015.9		0021.2			Meter	II
ABST	Jul 09	0418	0515	0710	042	1.00	H-alpha	Q
WEND	Jul 09	0736	0744	0806	068	0.99-1.11	H-alpha	S
WEIS	Jul 09	0736.0		0746.0			200-1000 MHz	IV
LEAR	Jul 09	0741.7		0820.7			Meter	IV
WEIS	Jul 09	0743.5		0817.0			30-140 MHz	II Harmonic
LEAR	Jul 09	0743.8		0809.7			Meter	II
WEND	Jul 09	0838	0842	1207D	055	1.0	H-alpha	A
WEND	Jul 09	0838	0903	1207D	055	1.0	H-alpha	A
WEIS	Jul 09	0902.0		1013.0			30-75 MHz	IV
WEND	Jul 09	0903	0934	1030D	078	0.98-1.06	H-alpha	Flare Loop
HARV	Jul 09	2107.0		2112.0			Decimeter	IV
CULG	Jul 09	2110.0		2115.0			Meter	II
ABST	Jul 10	0417	0652	0704	102	1.00	H-alpha	Q
ABST	Jul 10	0417	0652	0704	102	1.00	H-alpha	SP
ABST	Jul 10	0436	0458	0704	047	1.00	H-alpha	Q
WEND	Jul 10	0622	0633	0648	070	0.94-1.11	H-alpha	S
ABST	Jul 10	0638	0632	0704	067	1.00	H-alpha	SP
WEND	Jul 10	0716	0733	0812	101	1.0	H-alpha	S
WEND	Jul 10	0716	0806	0812	101	1.0	H-alpha	S
GEOR	Jul 10	0842E		0924D	104		H-alpha	S
GEOR	Jul 10	0905			104		H-alpha	S
WEND	Jul 10	0935	0949	1018D	102	1.0	H-alpha	S
WEND	Jul 10	0935	1004	1018D	102	1.0	H-alpha	S
HARV	Jul 11	1942.0		1946.0			Meter	II
CULG	Jul 11	2339.5		2344.5			Meter	II
CULG	Jul 12	0107.0		0113.5			Meter	II
LEAR	Jul 12	0110.6		0113.3			Meter	II
PALE	Jul 12	0110.8		0114.8			Meter	II
WEIS	Jul 12	0915		1825			30-240 MHz	IV
WEIS	Jul 12	0946.2		0949.0			100-160 MHz	II
WEIS	Jul 12	0954		1006			300-540 MHz	IV
WEIS	Jul 12	1104		1141			300-600 MHz	IV
WEIS	Jul 13	1003.5		1010.0			Meter	II

MASS EJECTIONS FROM THE SUN

July 1982

Sta	Day	Observed UT Start	Max	End	Location RA°	R/R_o	Freq or Wavelength	Kind of Event
WEIS	Jul 16	0853.6		0857.4			Meter	II Large Group
HARV	Jul 16	2353.0		2356.0			Decimeter	IV
KHAR	Jul 17	0945E		1005	280	0.69	H-alpha	S
HARV	Jul 17	2310.0		2333.0			Decimeter; meter	IV
CULG	Jul 17	2322.5		2332.0			Decimeter; meter	II
KHAR	Jul 18	1034E		1050D	014	0.07	H-alpha	S
GEOR	Jul 18	1153E		1200	082		H-alpha	S
PALE	Jul 19	0053.0		0121.4			Meter	IV
CULG	Jul 19	0105.5		0124.0			Meter; dekameter	II
HARV	Jul 19	2009.0		2021.0			Decimeter	IV
CULG	Jul 20	0204.0		0205.0			Decimeter; meter	Possible II
CULG	Jul 20	0430.5		0442.0			Meter	Possible II
KHAR	Jul 20	0730E		0814D	104	0.75	H-alpha	S
KHAR	Jul 20	0758E		0830D	272	0.96	H-alpha	S
KHAR	Jul 20	0813E		0850D	280	0.99	H-alpha	SP
KHAR	Jul 20	0948E		1000D	280	0.99	H-alpha	S
KHAR	Jul 21	0706E	0736	0918D	280	1.00	H-alpha	S
WEND	Jul 21	0823	0828	0900	282	1.0	H-alpha	SP
KHAR	Jul 21	0852E		0930	283	0.98	H-alpha	SP
HARV	Jul 21	1827.0		1832.0			Meter; dekameter	II
WEND	Jul 22	0531E		0554	294	1.00-1.24	H-alpha	S
KHAR	Jul 22	1100E		1146D	275	1.00	H-alpha	S
HARV	Jul 22	1646.0		1700.0			Decimeter	IV
HARV	Jul 22	1720.0		1730.0			Meter; dekameter	II
WEIS	Jul 22	1720.8		1725.3			Meter	II
SGMR	Jul 22	1720.9		1729.2			Meter	II
KHAR	Jul 26	0730		0755D	104	0.75	H-alpha	SP
KHAR	Jul 26	0750E		0820D	283	1.00	H-alpha	S
KHAR	Jul 27	0800E		0808	085	0.71	H-alpha	S
KHAR	Jul 28	1110E	1116	1146	288	1.00	H-alpha	S
KHAR	Jul 29	0742E		0837	103	0.98	H-alpha	SP
KHAR	Jul 29	0815E		0905D	071	1.00	H-alpha	S
WEND	Jul 29	0855		0908	076	1.0	H-alpha	S
KHAR	Jul 30	0818E		0844D	102	0.78	H-alpha	S
WEND	Jul 30	1150E		1230D	240	1.00-1.35	H-alpha	Q

QUALIFIERS ON START, MAX AND END TIMES
D = event ended after tabulated time
E = event began before the tabulated time
U = uncertain time

TYPE OF EVENT
A = eruptive active region prominence
CB = coronal cloud bubble
D = coronal depletions
E = coronal enhancement
EL = coronal expanding loop
II = Type II radio burst
IVm = moving Type IV radio burst
Q = eruptive quiescent prominence
R = coronal ray or streamer
S = flare-surge if there is a known flare association
SP = flare-spray if there is a known flare association
* = movement may be caused by ionospheric refraction

REPORTING STATIONS
ABST = Abastumani
BIGB = Big Bear
BLEN = Bleien
CULG = Culgoora
DWIN = Dwingeloo
GEOR = Georgiana
HALE = Haleakala
HAOC = High Altitude Observatory's SMM Coronagraph/Polarimeter
HAOK = High Altitude Observatory's MARK-III Coronameter at Mauna Loa
HARV = Harvard (Fort Davis)
KHAR = Kharkov
LEAR = Learmonth
LVOV = Lvov
MANI = Manila
MITK = Mitaka
NRLC = Naval Research Laboratory's White-Light Coronagraph Experiment on P78-1
PALE = Palehua
SGMR = Sagamore Hill
TELV = Tel Aviv
VORO = Voroshilov
WEIS = Weissenau
WEND = Wendelstein
UDAI = Udaipur

MISCELLANEOUS DATA

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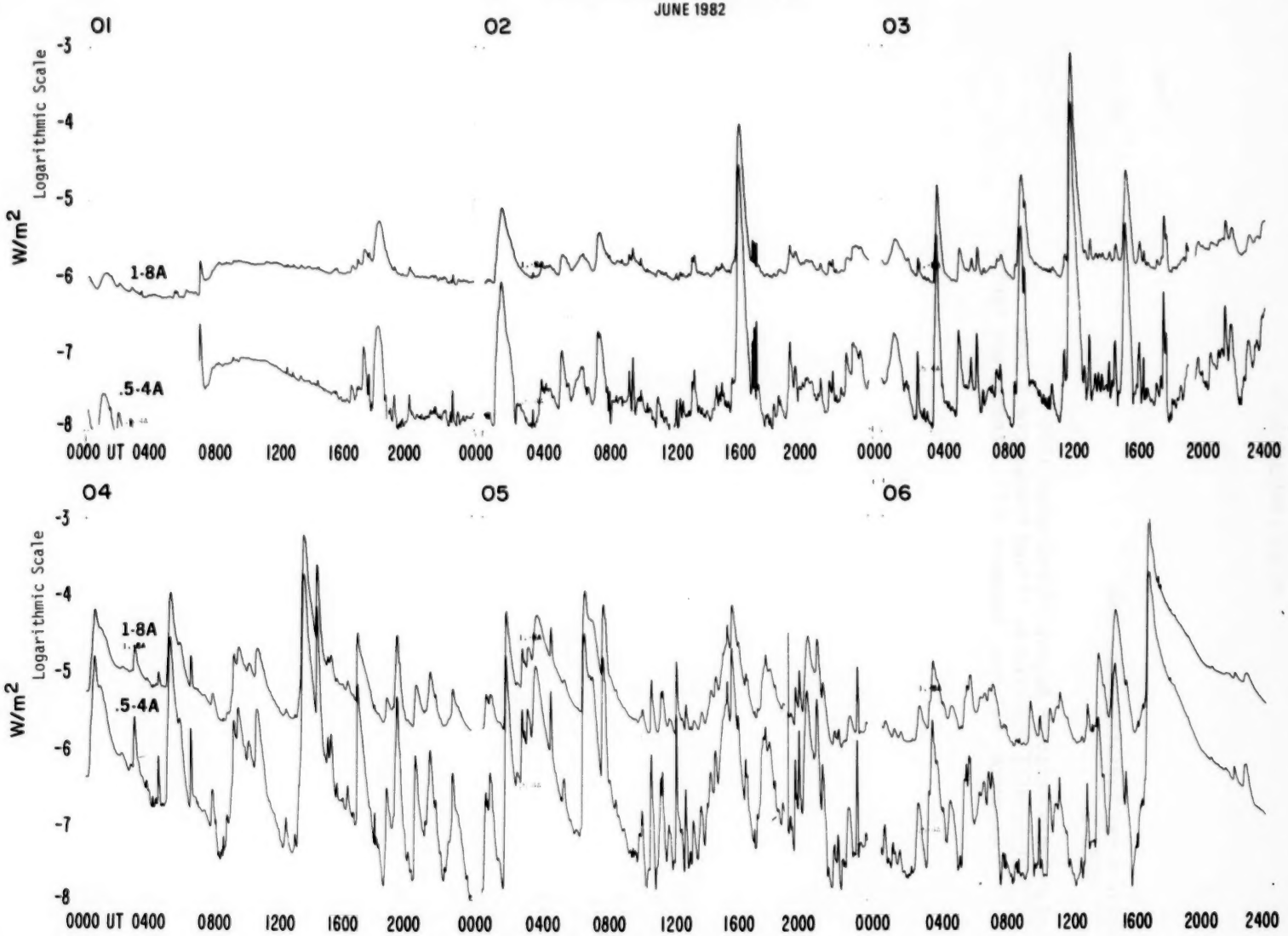
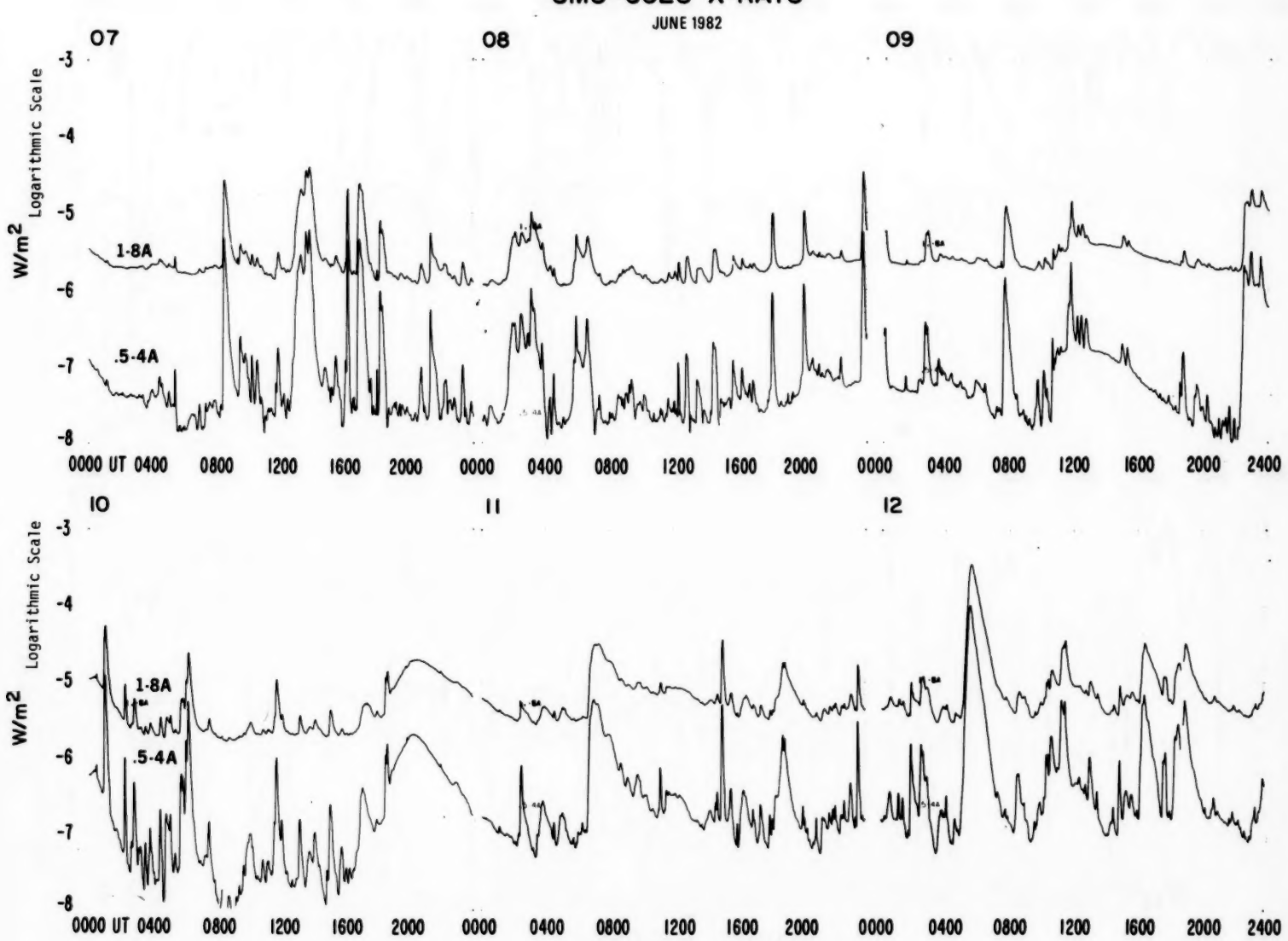
SMS-GOES X-RAYS

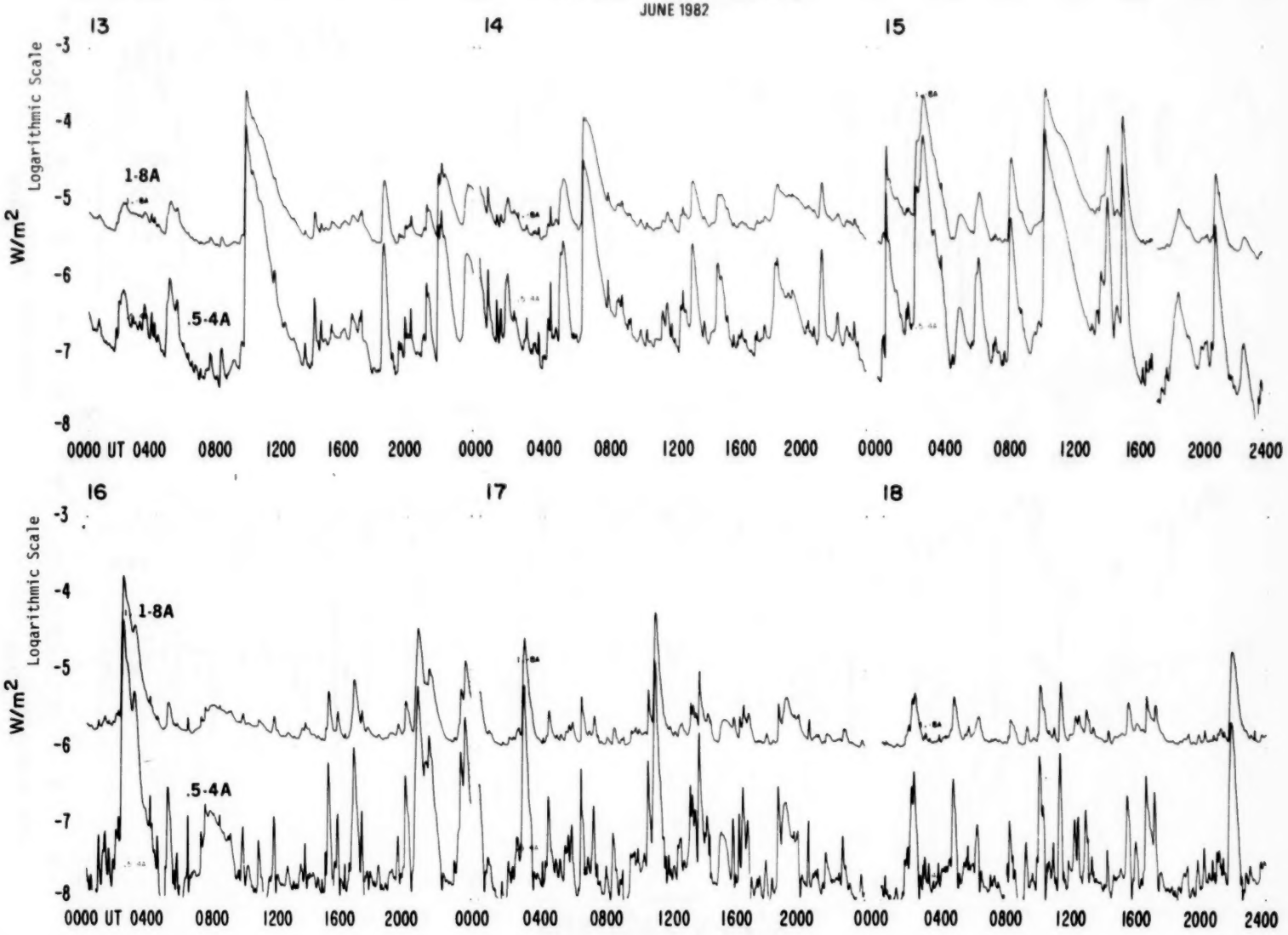
JUNE 1982




SMS-GOES X-RAYS
JUNE 1982
07
08
09
10
11
12
Logarithmic Scale
W/m2
1-8A
.5-4A
-3
-4
-5
-6
-7
-8
0000 UT 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 0000 0400 0800 1200 1600 2000 2400

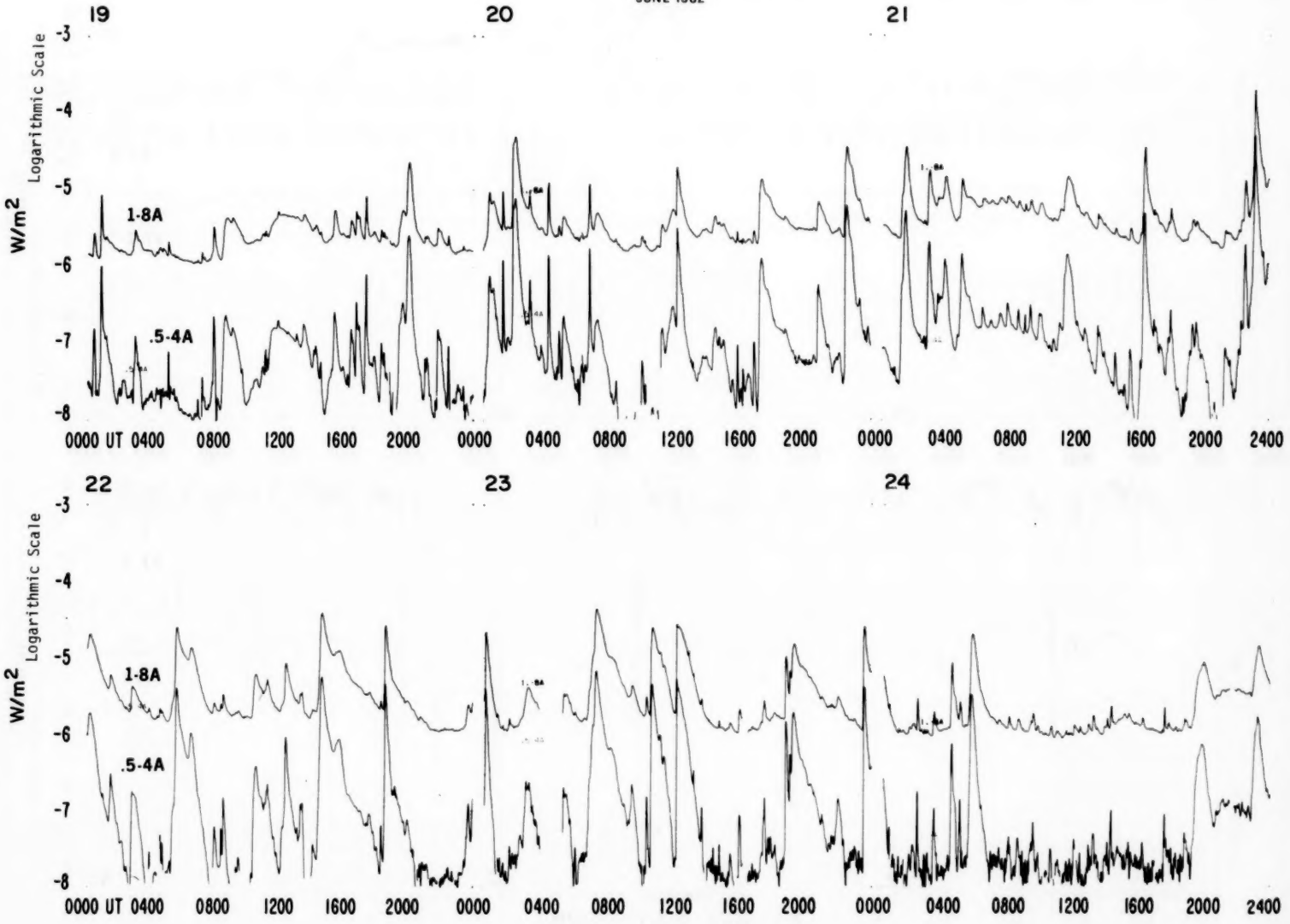
SMS-GOES X-RAYS

JUNE 1982



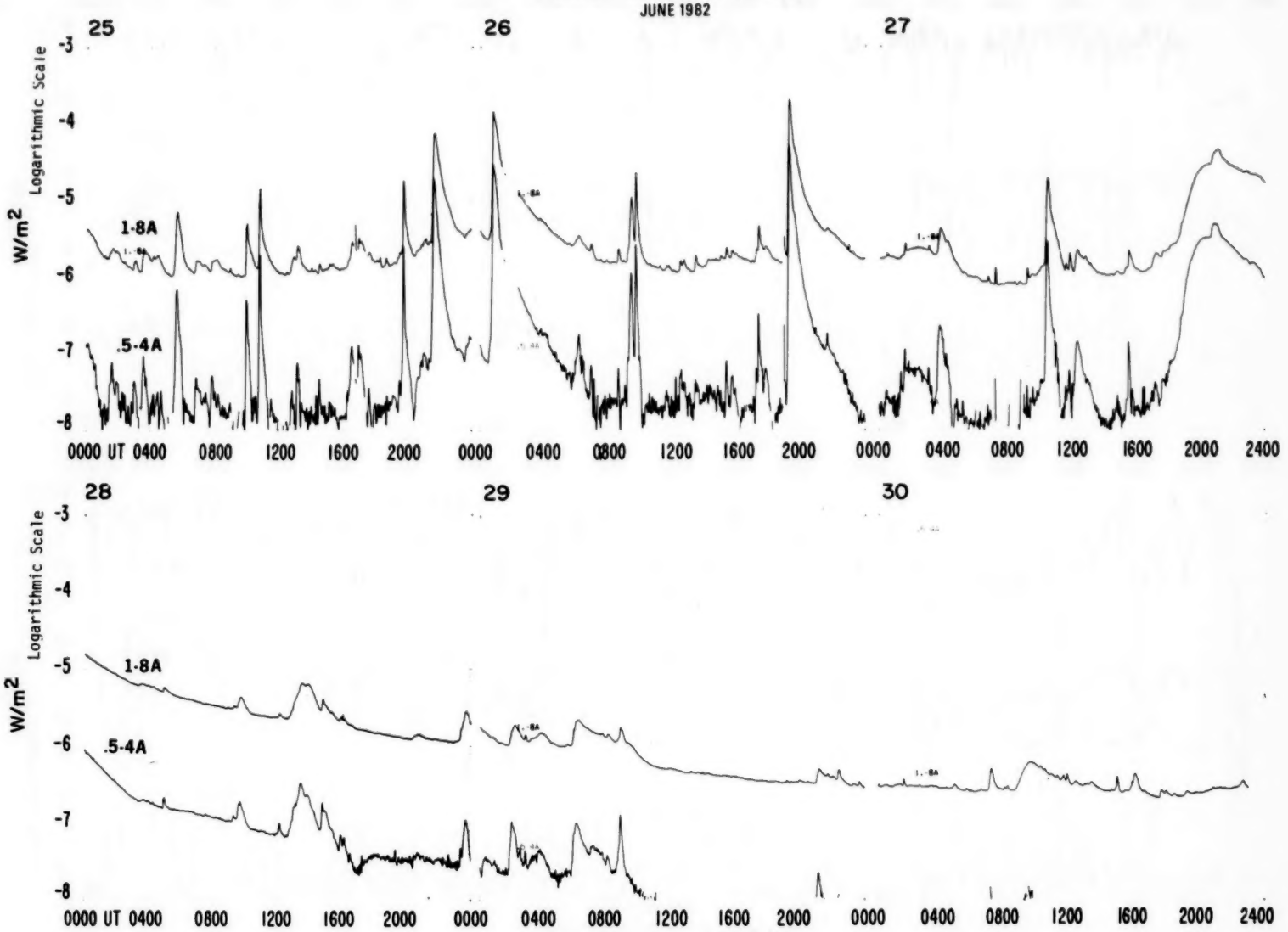
SMS-GOES X-RAYS

JUNE 1982



SMS-GOES X-RAYS

JUNE 1982



SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

AUGUST 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
01	245	LEAR	43	NS	0703.0	0756.0	162.0D	29.0			QL=2 ST=2 TYP=1
	410	LEAR	43	NS	0703.0	0821.0	162.0D	28.0			QL=2 ST=2 TYP=1
	1415	LEAR	4	S/F	0626.0	0629.0	5.0	16.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0628.0	0628.0	3.0	94.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0628.0	0629.0	3.0	30.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0628.0	0629.0	3.0	58.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0628.0	0629.0	3.0	16.0			QL=6 ST=3 TYP=4
	2695	ATHN	4	S/F	0628.0	0629.0	3.0	89.0			QL=6 ST=3 TYP=3
	4995	ATHN	4	S/F	0628.0	0629.0	5.0	42.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0628.0	0629.0	3.0	44.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	0628.0	0629.0	2.0	29.0			QL=6 ST=3 TYP=4
	8800	LEAR	8	S	0856.0	0856.0	2.0D	77.0			QL=3 ST=2 TYP=3
	15400	LEAR	8	S	0856.0	0856.0	2.0D	64.0			QL=3 ST=2 TYP=3
	4995	LEAR	4	S/F	0856.0	0857.0	3.0D	21.0			QL=3 ST=2 TYP=3
	1415	SGMR	8	S	1116.0	1116.0	2.0	33.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1116.0	1118.0	2.0	44.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1116.0	1118.0	3.0	160.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1117.0	1117.0	2.0	9.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1118.0	1118.0		170.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1412.0	1412.0	1.0	13.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1412.0	1412.0	1.0	13.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1412.0	1413.0	3.0	110.0			QL=6 ST=3 TYP=3
	4995	ATHN	8	S	1413.0	1414.0	2.0D	15.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1413.0	1414.0	3.0D	62.0			QL=5 ST=2 TYP=3
	2695	SGMR	4	S/F	1413.0	1414.0	5.0	16.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1413.0	1414.0	5.0	16.0			QL=6 ST=3 TYP=3
02	410	LEAR	43	NS	0200.0	0724.0	465.0D	9.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0804.0	465.0D	34.0			QL=2 ST=2 TYP=1
	245	PALE	43	NS	2330.5	0142.3	324.5D	100.0			QL=6 ST=2 TYP=1
03	410	LEAR	43	NS	0325.0	0543.6	380.0D	22.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0325.0	0735.8	380.0D	96.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1641.0	1519.3	734.0D	170.0			QL=6 ST=2 TYP=1
04	245	LEAR	43	NS	0200.0	0641.6	466.0D	84.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0546.0	0547.1	240.0D	11.0			QL=6 ST=2 TYP=1
	606	SGMR	8	S	2020.1	2020.3	1.0	119.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2020.1	2020.5	.7D	2.0			QL=6 ST=2 TYP=4
	2695	SGMR	8	S	2020.6	2021.0	1.2D	6.0			QL=6 ST=2 TYP=4
05	8800	SGMR	8	S	2020.8	2021.5	1.2	100.0			QL=6 ST=2 TYP=3
07	8800	LEAR	8	S	0712.5	0713.0	1.6D	57.0			QL=6 ST=3 TYP=4
	15400	LEAR	8	S	0712.5	0713.0	1.6	61.0			QL=6 ST=3 TYP=4
	4995	LEAR	8	S	0712.5	0713.1	1.6D	23.0			QL=6 ST=3 TYP=4
	4995	ATHN	4	S/F	0712.5	0713.1	2.5D	54.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	0712.8	0713.1	1.3	52.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1900.8	1901.6	5.7D	139.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1901.0	1901.6	3.3	180.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1901.1	1901.6	6.0D	93.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1950.5	1952.5	73.5	36.0			QL=6 ST=3 TYP=4
	606	SGMR	4	S/F	2054.0	2056.6	3.3	130.0			QL=6 ST=2 TYP=3
08	4995	SGMR	4	S/F	1737.5	1741.6	8.0D	33.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1738.3	1738.6	.7	64.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1738.8	1741.6	9.7D	48.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1740.6	1741.6	5.0	30.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1741.3	1741.8	1.2D	6.0			QL=6 ST=2 TYP=3
09	8800	ATHN	4	S/F	0835.0	0835.5	4.3	65.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0835.1	0835.3	5.4D	69.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0835.1	0836.3	5.0D	27.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0835.3	0835.3	2.0	33.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0835.3	0836.3	2.8D	31.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1101.0	1101.6	3.0D	9.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1101.0	1101.6	3.3	32.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1737.0	1744.8	11.1D	9.0			QL=6 ST=3 TYP=4
	8800	SGMR	4	S/F	1738.8	1745.1	14.2D	78.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1739.6	1744.6	13.4D	52.0			QL=6 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

AUGUST 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	1415	SGMR	4	S/F	1740.1	1744.8	6.0D	13.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1743.6	1744.6	2.5D	280.0			QL=6 ST=3 TYP=3
	606	PALE	4	S/F	1744.0	1744.1	2.6D	139.0			QL=6 ST=3 TYP=3
	410	PALE	8	S	1744.0	1744.3	1.0	150.0			QL=6 ST=3 TYP=3
	15400	SGMR	4	S/F	1744.0	1744.8	3.0	38.0			QL=6 ST=3 TYP=3
	8800	PALE	4	S/F	1744.0	1744.8	6.8D	83.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	1744.0	1744.8	2.3D	35.0			QL=6 ST=3 TYP=3
	2695	PALE	4	S/F	1744.0	1744.8	2.3D	22.0			QL=6 ST=3 TYP=3
	1415	PALE	4	S/F	1744.0	1744.8	2.3D	13.0			QL=6 ST=3 TYP=3
	15400	PALE	4	S/F	1744.0	1744.8	2.3D	41.0			QL=6 ST=3 TYP=3
	606	PALE	4	S/F	1844.0	1844.1	2.6D	139.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	1844.0	1844.3	1.0	150.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1844.0	1844.8	6.8D	83.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1844.0	1844.8	2.3D	35.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	1844.0	1844.8	2.3D	41.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1844.0	1844.8	2.3D	22.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	1844.0	1844.8	2.3D	13.0			QL=6 ST=2 TYP=3
10	4995	MANI	4	S/F	0901.3	0914.3	22.5D	139.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0903.0	0914.6	20.1	230.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0910.0	0913.8	11.1D	63.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0910.3	0914.0	11.0D	35.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0910.3	0914.3	7.2D	63.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0910.5	0913.8	8.1D	32.0			QL=6 ST=2 TYP=4
	1415	LEAR	4	S/F	0910.5	0914.8	10.6D	16.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0910.8	0913.8	9.7D	35.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0910.8	0914.1	16.0	82.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0910.8	0914.1	18.2D	83.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0911.0	0914.3	8.5D	18.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0911.3	0913.3	11.8D	6.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	0911.3	0913.6	5.3D	22.0			QL=6 ST=2 TYP=4
	15400	LEAR	4	S/F	0912.1	0914.3	6.5	21.0			QL=6 ST=2 TYP=4
11	2695	ATHN	4	S/F	1336.6	1336.8	2.7	15.0			QL=5 ST=2 TYP=4
	2695	ATHN	8	S	1756.1	1756.6	1.4D	21.0			QL=5 ST=3 TYP=4
	1415	ATHN	8	S	1756.3	1756.6	.8D	11.0			QL=5 ST=3 TYP=4
	4995	ATHN	8	S	1756.3	1756.6	.8D	36.0			QL=5 ST=3 TYP=3
	8800	ATHN	8	S	1756.3	1756.6	1.2	21.0			QL=5 ST=3 TYP=4
	245	PALE	47	GB	2151.8	2252.3	60.8	520.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2350.3	2350.5	2.0	3100.0			QL=6 ST=2 TYP=5
12	245	PALE	47	GB	0045.1	0045.3	.5	1100.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	0051.8	0052.3	4.3	190.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	0054.6	0056.0	1.5D	380.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0320.8	0321.1	2.3D	21.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0321.0	0321.3	1.0	290.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0321.0	0321.3	.3	230.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0444.3	0444.8	.8	8.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0445.3	0445.6	6.7D	130.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0445.3	0450.1	6.7D	530.0			QL=6 ST=2 TYP=5
13	245	LEAR	43	NS	0200.0	0811.6	470.0D	47.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1151.0	2145.5	713.0D	130.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1644.0	0402.6	727.0D	15.0			QL=6 ST=2 TYP=1
	15400	SGMR	47	GB	1012.5E	1027.5	80.0D	13000.0			QL=4 ST=2 TYP=5
	4995	ATHN	47	GB	1014.3	1029.6	108.0	2000.0			QL=6 ST=2 TYP=5
	8800	ATHN	47	GB	1018.1	1028.3	80.4	1900.0			QL=2 ST=2 TYP=5
	245	PALE	47	GB	2029.0	2032.8	7.0	1500.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2031.8	2032.8	2.2	1199.0			QL=6 ST=2 TYP=5
14	245	LEAR	43	NS	0200.0	0822.3	470.0D	190.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0528.8	0745.0	261.2D	139.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1802.5	1804.8	649.5	170.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0226.6	0227.1	1.0D	670.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0226.6	0227.1	1.0	1000.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0227.0	0227.1	.6	360.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0641.3	0641.8	.8	68.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0641.6	0641.8	1.0D	300.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1004.5	1005.1	3.1	11.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	1004.6	1005.3	2.7	13.0			QL=5 ST=3 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
14	8800	ATHN	8	S	1004.8	1005.3	2.0	15.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	1131.3	1232.3	172.0D	79.0			QL=5 ST=2 TYP=4
	1415	SGMR	47	GB	1135.5	1300.1	141.3D	21000.0			QL=6 ST=3 TYP=5
	2695	ATHN	4	S/F	1136.1	1231.8	166.9D	61.0			QL=5 ST=2 TYP=4
	8800	ATHN	4	S/F	1141.0	1232.1	162.5	52.0			QL=5 ST=2 TYP=4
	245	SGMR	47	GB	1141.1	1244.5	102.7D	620.0			QL=6 ST=3 TYP=5
	8800	SGMR	47	GB	1150.5	1248.5	123.6D	16000.0			QL=6 ST=3 TYP=5
	606	SGMR	47	GB	1151.0	1243.6	92.0D	920.0			QL=6 ST=3 TYP=5
	2695	SGMR	47	GB	1153.3	1254.6	123.8D	6200.0			QL=6 ST=3 TYP=5
	4995	SGMR	47	GB	1154.6	1248.8	122.4D	11999.0			QL=6 ST=3 TYP=5
	15400	SGMR	47	GB	1238.1	1248.3	69.2D	9100.0			QL=6 ST=3 TYP=5
	4995	ATHN	47	GB	1241.6	1249.1	101.7	8000.0			QL=5 ST=3 TYP=5
	2695	ATHN	47	GB	1241.6	1254.8	101.4	4400.0			QL=5 ST=3 TYP=5
	8800	ATHN	47	GB	1242.8	1248.8	100.7	8200.0			QL=5 ST=2 TYP=5
	8800	SGMR	8	S	1543.5	1543.8	1.0	11.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	1543.6	1543.8	1.5D	450.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	1543.6	1543.8	1.5	20.0			QL=5 ST=2 TYP=3
	4995	ATHN	8	S	1543.6	1544.0	1.0D	11.0			QL=5 ST=2 TYP=3
	2695	SGMR	47	GB	1543.8	1544.6	3.0D	500.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1727.0	1729.1	6.0	500.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1727.8	1729.5	5.5	580.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	2011.6	2013.8	3.0D	139.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2013.3	2013.6	1.7	300.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2013.3	2013.6	1.7D	62.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2013.3	2013.6	1.7D	139.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2013.3	2014.1	1.5D	60.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2014.0	2014.8	1.0	19.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2046.8	2048.3	8.2	630.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2047.1	2049.0	6.4D	620.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	2048.3	2051.3	4.0	11.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2049.0	2049.3	3.3D	54.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2309.8	2311.8	5.0	15000.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2311.8	2312.1	.3	7400.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2341.5	2355.5	26.0	940.0			QL=6 ST=2 TYP=5
	1415	MANI	4	S/F	2355.0	2356.0	3.8D	13.0			QL=6 ST=2 TYP=4
	606	MANI	47	GB	2355.5	2356.1	3.0D	139.0			QL=6 ST=2 TYP=5
	2695	MANI	4	S/F	2356.0	2357.3	3.0	44.0			QL=6 ST=2 TYP=4
15	245	LEAR	43	NS	0200.0	0917.0	471.0D	98.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1827.0	2112.1	625.0D	220.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0040.5	0041.1	13.3	7600.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	0208.1	0209.1	7.4	300.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0208.1	0210.6	7.4D	150.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	0208.1	0212.1	7.4D	130.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0212.5	0212.5	.1	670.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0233.5	0238.0	10.8	4200.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0234.0	0238.1	5.3D	30.0			QL=3 ST=2 TYP=3
	410	LEAR	4	S/F	0234.3	0238.0	4.0D	410.0			QL=3 ST=2 TYP=3
	8800	LEAR	4	S/F	0234.6	0237.8	4.5D	87.0			QL=3 ST=2 TYP=3
	2695	LEAR	4	S/F	0234.8	0237.8	4.3D	77.0			QL=3 ST=2 TYP=3
	245	LEAR	47	GB	0235.0	0237.8	3.3D	2900.0			QL=3 ST=2 TYP=5
	606	LEAR	4	S/F	0235.3	0238.0	4.7D	440.0			QL=3 ST=2 TYP=3
	1415	MANI	47	GB	0237.0	0237.6	2.0	220.0			QL=6 ST=2 TYP=5
	1415	LEAR	8	S	0237.3	0238.0	1.8D	350.0			QL=3 ST=2 TYP=3
	15400	LEAR	8	S	0237.3	0238.0	1.7	29.0			QL=3 ST=2 TYP=3
	245	SGMR	4	S/F	1134.5	1134.6	5.8	88.0			QL=6 ST=3 TYP=3
	15400	SGMR	4	S/F	1527.5	1528.1	8.0	48.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1527.6	1528.1	6.4D	350.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1527.8	1528.3	4.7D	31.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1527.8	1528.3	4.7D	43.0			QL=6 ST=3 TYP=3
	2695	ATHN	4	S/F	1528.3	1529.0	5.2D	27.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1528.3	1529.0	5.2D	35.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1528.3	1529.0	6.5	48.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1530.1	1530.6	2.2D	9.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1916.3	1916.8	1.2	340.0			QL=6 ST=2 TYP=3
16	245	SGMR	43	NS	1000.0	1855.3	819.0D	520.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1340.0	1438.3	497.6	73.0			QL=6 ST=3 TYP=1
	245	PALE	43	NS	1644.0	1854.1	728.0D	690.0			QL=6 ST=3 TYP=1
	245	PALE	43	NS	1854.1	1854.1	597.9D	690.0			QL=6 ST=3 TYP=1

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
16	245	PALE	47	GB	0253.0	0253.6	1.0	2400.0			QL=6 ST=2 TYP=5
	4995	MANI	4	S/F	0455.0	0456.3	5.3	130.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0455.0	0456.3	7.0	96.0			QL=5 ST=2 TYP=3
	2695	MANI	4	S/F	0455.3	0456.3	5.0D	139.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0455.6	0459.5	5.7D	170.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0754.3	0756.0	13.5D	139.0			QL=3 ST=2 TYP=3
	2695	LEAR	4	S/F	0754.6	0756.1	13.4D	190.0			QL=3 ST=2 TYP=3
	4995	LEAR	4	S/F	0754.6	0756.1	13.4D	220.0			QL=3 ST=2 TYP=3
	15400	LEAR	4	S/F	0755.0	0756.0	10.3	61.0			QL=3 ST=2 TYP=3
	1415	LEAR	4	S/F	0755.1	0756.3	12.9D	310.0			QL=3 ST=2 TYP=3
	1415	SGMR	4	S/F	1135.8	1203.3	51.7	29.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1136.0	1152.0	53.1D	190.0			QL=6 ST=3 TYP=3
	606	SGMR	47	GB	1144.6	1218.1	43.4D	2000.0			QL=6 ST=3 TYP=5
17	410	LEAR	43	NS	0240.0	0357.0	431.0D	15.0			QL=6 ST=2 TYP=1
	245	LEAR	44	NS	0240.0E	0833.1	431.0D	73.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0956.0	1329.1	822.0D	63.0			QL=6 ST=2 TYP=1
	8800	ATHN	43	NS	1636.5	1637.6	7.0	63.0			QL=5 ST=2 TYP=1
	245	PALE	43	NS	1644.0	2334.1	728.0D	430.0			QL=6 ST=2 TYP=1
	4995	ATHN	47	GB	1636.5	1637.8	7.0	20.0			QL=6 ST=2 TYP=5
18	245	LEAR	43	NS	0200.0	0318.3	472.0D	220.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0515.0	472.0D	49.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1506.5						QL=6 ST=3 TYP=1
	245	PALE	43	NS	1644.0	2334.1	728.0D	430.0			QL=6 ST=2 TYP=1
	245	SGMR	47	GB	0140.0	1415.0		3700.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0252.8	0253.3	1.5D	1700.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0253.1	0253.3	.4	26.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0947.5	0949.8	4.5D	74.0			QL=4 ST=2 TYP=3
	2695	ATHN	4	S/F	0948.1	0950.3	11.2D	88.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0948.1	0950.3	12.2	43.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	0948.1	0950.3	11.2	86.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0949.0	0949.6	3.0D	92.0			QL=4 ST=2 TYP=3
	1415	ATHN	4	S/F	0949.5	0950.5	2.5D	7.0			QL=6 ST=2 TYP=4
	1415	SGMR	8	S	1345.0	1407.0		2.0			QL=6 ST=3 TYP=3
	8800	SGMR	47	GB	1345.0	1407.0		800.0			QL=6 ST=3 TYP=5
	606	SGMR	8	S	1345.0	1407.0		340.0			QL=6 ST=3 TYP=3
	2695	SGMR	47	GB	1345.0	1407.0		700.0			QL=6 ST=3 TYP=5
	4995	SGMR	8	S	1345.0	1407.0		320.0			QL=6 ST=3 TYP=3
	15400	SGMR	47	GB	1345.0	1407.0		1399.0			QL=6 ST=3 TYP=5
	4995	ATHN	47	GB	1345.6	1413.8	91.7	830.0			QL=6 ST=3 TYP=5
	2695	ATHN	4	S/F	1345.8	1405.1	77.8D	420.0			QL=6 ST=3 TYP=4
	1415	ATHN	4	S/F	1345.8	1406.0	70.8D	320.0			QL=6 ST=3 TYP=4
	8800	ATHN	47	GB	1345.8	1413.8	932.0	1199.0			QL=5 ST=2 TYP=5
	8800	ATHN	47	GB	1345.8	1413.8	92.0	1199.0			QL=5 ST=2 TYP=5
	245	SGMR	47	GB	1400.0	1415.0		3700.0			QL=6 ST=3 TYP=5
19	245	LEAR	43	NS	0200.0	0910.6	473.0D	97.0			QL=5 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0918.0	473.0D	13.0			QL=5 ST=2 TYP=1
	245	SGMR	43	NS	0958.0	1829.1	817.0D	160.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1644.0	0241.1	728.0D	119.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	0259.1	726.0D	520.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	0541.3	0545.8	13.8	40.0			QL=5 ST=2 TYP=4
	4995	ATHN	4	S/F	0541.6	0545.8	13.0	43.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0541.8	0545.8	10.5D	20.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0542.3	0543.0	1.5	680.0			QL=5 ST=2 TYP=5
	4995	LEAR	4	S/F	0542.3	0545.8	14.3D	42.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0543.0	0547.0	14.0D	50.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0545.1	0545.8	2.7D	15.0			QL=6 ST=2 TYP=4
	15400	LEAR	4	S/F	0545.3	0546.0	5.7	11.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0642.3	0643.0	1.5	680.0			QL=5 ST=3 TYP=5
	606	LEAR	47	GB	0658.5	0703.0	8.0	640.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0841.6	0844.6	6.0D	90.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0843.0	0844.3	3.3D	8.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0843.0	0845.0	5.1D	7.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0843.1	0845.0	6.9D	61.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0843.6	0844.5	2.7	13.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0843.8	0847.8	5.2D	58.0			QL=6 ST=2 TYP=3
20	606	LEAR	43	NS	0200.0	0528.6	472.0D	15.0			QL=6 ST=2 TYP=1

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
20	410	LEAR	43	NS	0219.5	0952.0	452.5D	23.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0231.0	0220.8	441.0D	600.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1646.0	1652.6	724.0D	460.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0027.0	0028.1	2.5	710.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0220.6	0221.0	1.4	830.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0532.3	0533.0	3.2	7.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0533.0	0533.3	1.0D	64.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0534.0	0534.1	.5D	4.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0534.0	0534.3	.6D	22.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0720.1	0722.0	4.0D	4.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0721.0	0722.3	8.1D	71.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0721.1	0722.1	2.2	290.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0721.1	0722.1	3.4D	240.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0721.1	0722.3	70.0D	220.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0721.3	0722.3	8.8D	200.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0721.3	0722.3	5.7	250.0			QL=6 ST=3 TYP=3
	2695	ATHN	4	S/F	0721.3	0722.5	9.8D	66.0			QL=6 ST=3 TYP=4
	15400	LEAR	4	S/F	0721.5	0722.6	6.6	160.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0722.1	0722.3	4.4D	52.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	0853.8	0924.5	108.8	2400.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	0903.6	0924.6	44.4D	560.0			QL=6 ST=3 TYP=5
	1415	LEAR	4	S/F	0903.6	0924.6	43.9D	400.0			QL=6 ST=3 TYP=3
	4995	LEAR	47	GB	0903.8	0924.6	45.2D	1199.0			QL=6 ST=3 TYP=5
	15400	LEAR	47	GB	0904.1	0924.5	44.7	2800.0			QL=6 ST=3 TYP=5
	8800	LEAR	47	GB	0904.3	0924.6	44.7D	1700.0			QL=6 ST=3 TYP=5
	606	LEAR	47	GB	0908.8	0916.1	32.5D	660.0			QL=6 ST=3 TYP=5
	410	LEAR	47	GB	0909.0	0919.5	39.1D	560.0			QL=6 ST=3 TYP=5
	245	LEAR	4	S/F	0909.3	0922.3	30.0D	400.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1940.8	1944.1	8.5	29.0			QL=6 ST=2 TYP=4
	410	PALE	8	S	2217.6	2218.0	1.2D	139.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2217.8	2218.1	1.0	170.0			QL=6 ST=2 TYP=3
21	245	LEAR	43	NS	0200.0	0405.6	473.0D	40.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0923.0	473.0D	5.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1000.0	2150.5	812.0D	490.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1647.0	2152.3	723.0D	540.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	2121.0	2332.1	449.0D	200.0			QL=6 ST=2 TYP=1
	1415	ATHN	4	S/F	0558.8	0617.5	36.0D	71.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0559.3	0616.8	57.8	31.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0600.1	0620.1	55.5D	36.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0602.8	0617.6	32.8D	93.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	0608.0	0610.8	7.8D	86.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0608.3	0614.5	6.8D	46.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0611.5	0614.5	3.5	26.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0832.6	0838.3	14.2	13.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0835.6	0840.3	13.0D	17.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0836.6	0840.8	11.9D	6.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	1749.6	1751.3	3.4	1100.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1750.0	1751.1	2.3	2000.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	2236.5	2249.5	24.0	150.0			QL=6 ST=2 TYP=5
22	410	LEAR	43	NS	0200.0	0228.6	473.0D	13.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	0200.0	0228.8	473.0D	3.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0354.1	473.0D	320.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1001.0	2134.3	809.0	95.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1902.0	2137.5	588.0D	160.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1902.0	2156.3	588.0D	340.0			QL=6 ST=2 TYP=1
	1415	SGMR	4	S/F	1846.1	1857.8	20.2D	139.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1850.0	1856.8	12.1	23.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	1850.0	1857.8	12.1D	130.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1851.5	1859.3	10.5	9.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1852.1	1856.8	10.2D	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1854.8	1859.1	11.2D	11.0			QL=6 ST=2 TYP=3
23	410	LEAR	44	NS	0200.0E	0301.5	474.0D	119.0			QL=5 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0335.0	474.0D	150.0			QL=5 ST=2 TYP=1
	606	LEAR	43	NS	0303.0	0337.3	411.0	19.0			QL=5 ST=2 TYP=1
	245	SGMR	43	NS	1002.0	1839.0	807.0D	220.0			QL=6 ST=2 TYP=1
	4995	ATHN	4	S/F	1243.3	1251.3	101.0D	290.0			QL=6 ST=3 TYP=3
	8800	ATHN	47	GB	1243.8	1251.3	102.5	650.0			QL=6 ST=3 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

AUGUST 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
23	2695	ATHN	47	GB	1243.8	1252.1	81.5D	119.0			QL=6 ST=3 TYP=5
	245	SGMR	47	GB	1249.0	1249.8	20.8	2100.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	1507.0	1508.5	11.0	22.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1507.0	1508.6	6.6D	30.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1507.0	1508.6	8.3D	31.0			QL=6 ST=2 TYP=4
24	606	LEAR	43	NS	0200.0	0303.3	474.0D	8.0			QL=5 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0656.6	474.0D	230.0			QL=5 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0715.8	474.0D	22.0			QL=5 ST=2 TYP=1
	245	SGMR	43	NS	1004.0	1418.0	803.0D	210.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	1748.5	724.5D	220.0			QL=6 ST=2 TYP=1
	4995	ATHN	4	S/F	1155.8	1211.8	31.0D	43.0			QL=6 ST=3 TYP=4
	8800	ATHN	4	S/F	1157.6	1212.3	31.9	38.0			QL=6 ST=3 TYP=4
	2695	ATHN	4	S/F	1158.3	1211.6	18.5D	33.0			QL=6 ST=3 TYP=4
	1415	ATHN	4	S/F	1159.1	1201.3	17.4D	7.0			QL=6 ST=3 TYP=4
25	410	LEAR	43	NS	0200.0	0802.6	474.0D	54.0			QL=6 ST=3 TYP=1
	606	LEAR	43	NS	0200.0	0802.6	474.0D	54.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0802.8	474.0D	58.0			QL=6 ST=3 TYP=1
	245	SGMR	43	NS	1005.0	1239.0	800.0D	180.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	2200.0	0225.0	408.0D	370.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0056.8	0057.3	2.2	2500.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	1943.6	1959.8	23.5D	90.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1943.6	2000.5	27.2D	19.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1945.1	2000.0	24.4D	110.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1946.0	2000.6	23.6D	82.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1948.8	1949.1	15.0D	34.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1950.3	2000.1	14.8	47.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2225.8	2226.3	1.3	240.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2225.8	2226.8	1.3D	71.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2313.0	2313.6	1.1	320.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2313.1	2313.6	1.0D	250.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2313.1	2313.6	1.0D	139.0			QL=6 ST=2 TYP=3
26	606	LEAR	43	NS	0200.0	0208.1	474.0D	13.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0220.8	474.0D	200.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0221.1	474.0D	64.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1006.0	1852.8	798.0D	560.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1647.0	1944.3	721.0D	84.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1647.0	1951.6	721.0D	139.0			QL=6 ST=2 TYP=1
	1415	SGMR	43	NS	1822.0	1852.3	302.0D	50.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1823.1	1945.6	300.9D	600.0			QL=6 ST=2 TYP=1
	606	PALE	43	NS	1900.0	1957.1	285.0D	640.0			QL=6 ST=3 TYP=1
	2695	LEAR	8	S	0200.0	0200.0	2.0D	19.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0200.0E	0200.0	4.6D	15.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0200.0	0200.0	3.1D	5.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0335.0	0338.1	5.5	20.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0335.8	0337.1	7.0D	21.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0336.8	0337.6	2.2D	91.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0337.0	0337.8	1.6D	5.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0337.3	0337.5	.5D	7.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0337.3	0337.8	.8D	45.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0843.8	0845.1	2.8D	6.0			QL=5 ST=2 TYP=3
	410	LEAR	4	S/F	0844.3	0845.6	4.0D	85.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	0844.3	0846.0	7.0D	49.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0844.3	0846.0	7.0	43.0			QL=5 ST=2 TYP=4
	8800	ATHN	4	S/F	0844.6	0846.0	6.7	19.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0844.6	0846.0	3.2D	119.0			QL=5 ST=2 TYP=3
	8800	LEAR	4	S/F	0844.6	0846.0	3.2	31.0			QL=5 ST=2 TYP=3
	2695	LEAR	4	S/F	0844.8	0846.0	4.2D	39.0			QL=5 ST=2 TYP=3
	4995	LEAR	4	S/F	0845.0	0846.1	7.3D	64.0			QL=5 ST=2 TYP=3
	1415	ATHN	8	S	0845.1	0846.1	1.5	8.0			QL=6 ST=2 TYP=4
	245	LEAR	47	GB	0845.3	0845.3	2.7D	1199.0			QL=5 ST=2 TYP=5
	8800	ATHN	47	GB	1638.6	1645.3	25.2D	1900.0			QL=5 ST=2 TYP=5
	15400	SGMR	47	GB	1639.8	1645.3	66.3	1199.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	1640.0	1647.0	60.0D	750.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	1640.0	1647.0	60.0	170.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1640.0	1647.0	60.0D	450.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1646.6	1658.0	64.4D	700.0			QL=3 ST=3 TYP=5
	245	SGMR	47	GB	1650.0E	1750.0	4358.8D	139.0			QL=3 ST=3 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

AUGUST 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
26	1415	SGMR	47	GB	1750.6	1758.5	31.4D	480.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	1752.0	1757.5	51.0D	430.0			QL=6 ST=3 TYP=5
	410	PALE	47	GB	1752.0	1757.5	53.0	1199.0			QL=6 ST=3 TYP=5
	606	PALE	47	GB	1752.0	1757.5	53.0D	71000.0			QL=6 ST=3 TYP=5
	8800	SGMR	4	S/F	1753.8	1801.8	26.5	19.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1753.8	1802.6	29.0D	310.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1755.0	1801.0	34.0D	98.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1755.0	1801.5	22.5D	150.0			QL=6 ST=2 TYP=3
	2695	PALE	47	GB	1755.0	1802.0	34.0D	560.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	1851.0	1852.5	24.0	570.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	2110.0	2111.3	2.1	250.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2110.0	2111.3	2.1D	390.0			QL=6 ST=2 TYP=3
27	410	LEAR	43	NS	0200.0	0701.6	474.0D	35.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0720.8	474.0D	53.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1007.0	1936.0	795.0D	139.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1648.0	0303.8	720.0D	290.0			QL=6 ST=2 TYP=1
	606	LEAR	47	GB	0255.1	0309.1	14.2D	1399.0			QL=6 ST=3 TYP=5
	1415	LEAR	4	S/F	0255.6	0309.1	14.2	42.0			QL=6 ST=3 TYP=3
	410	LEAR	47	GB	0257.5	0305.0	17.1D	1500.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0258.0	0307.1	9.5D	4300.0			QL=6 ST=3 TYP=5
28	410	LEAR	43	NS	0200.0	0305.6	475.0D	39.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0605.0	475.0D	270.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1008.0	1220.3	793.0D	94.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0450.1	0451.6	2.5	44.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0450.6	0451.6	4.7D	4900.0			QL=6 ST=3 TYP=5
	4995	ATHN	4	S/F	1220.6	1221.6	25.4D	10.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1220.8	1222.0	25.0	15.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1251.8	1252.5	27.3D	4.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1252.1	1253.3	9.9D	95.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1252.3	1252.8	26.5D	11.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1253.0	1253.5	26.3	110.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1253.0	1253.6	26.3D	42.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1253.1	1253.3	8.9	41.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1253.1	1253.5	8.4D	27.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1303.1	1313.5	16.9	60.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1304.0	1308.5	12.0D	38.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1413.5	1414.6	5.5	480.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1517.0	1518.0	1.5	290.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2149.1	2149.5	.9	540.0			QL=6 ST=2 TYP=5
29	245	SGMR	43	NS	1009.0	1448.6	790.0D	63.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1648.0	1859.0	720.0D	94.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1648.0	1859.3	720.0D	47.0			QL=6 ST=2 TYP=1
30	245	SGMR	43	NS	1010.0	1308.0	787.0D	170.0			QL=6 ST=2 TYP=1
31	245	SGMR	43	NS	1200.8	1818.3		480.0			QL=6 ST=3 TYP=1
	410	LEAR	47	GB	0717.0	0717.6	1.1D	850.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0717.3	0717.5	.5	280.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1111.0	1111.6	1.1	350.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2248.6	2249.0	1.5	190.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2248.8	2249.1	1.0D	100.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	410	LEAR	43	NS	0200.0	0733.0	476.0D	57.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0856.5	476.0D	39.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0316.1	0316.5	2.0	28.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0317.3	0318.3	1.2D	54.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1524.8	1527.3	6.8	460.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1757.0	1800.3	6.3	290.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1758.0	1800.0	4.0	400.0			QL=6 ST=2 TYP=3
02	245	LEAR	43	NS	0200.0	0306.8	477.0D	42.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0649.0	477.0D	19.0			QL=6 ST=2 TYP=1
	410	PALE	4	S/F	0019.1	0024.1	27.9D	23.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0019.3	0028.6	27.7	110.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	0020.3	0025.5	26.7D	41.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0021.1	0034.0	25.9D	110.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0021.1	0034.1	25.9D	55.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0021.1	0034.1	25.9D	73.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0021.1	0034.1	25.9D	139.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0212.0	0212.5	3.3	110.0			QL=6 ST=2 TYP=3
03	245	SGMR	43	NS	1014.0	2002.5	776.0D	310.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1644.0	2121.3	723.0D	250.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0434.5	0441.8	11.0D	96.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0437.8	0443.8	11.2D	13.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0438.6	0444.5	11.0	4.0			QL=6 ST=2 TYP=4
	1415	LEAR	4	S/F	0439.0	0441.8	8.0D	3.0			QL=6 ST=2 TYP=4
	4995	LEAR	4	S/F	0439.0	0444.1	9.6D	10.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0439.8	0440.6	6.2D	13.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0440.8	0442.0	5.3D	6.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1856.6	1856.8	3.2D	210.0			QL=6 ST=3 TYP=3
	410	PALE	4	S/F	1856.8	1857.3	5.7D	380.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1856.8	1857.5	5.7	139.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	1856.8	1857.6	5.7D	540.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	1856.8	1858.5	2.8D	79.0			QL=6 ST=3 TYP=3
	15400	SGMR	4	S/F	1857.0	1858.3	3.0	79.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1857.1	1858.0	3.2D	25.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1857.1	1858.6	6.5D	110.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1857.3	1858.3	2.7D	54.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1857.3	1858.8	6.2D	22.0			QL=6 ST=3 TYP=3
04	245	LEAR	43	NS	0200.0	0228.0	478.0D	90.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	0200.0	0633.6	478.0D	65.0			QL=6 ST=3 TYP=1
	245	SGMR	43	NS	1015.0	2142.1	774.0D	110.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	0202.8	721.0D	590.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1645.0	2124.5	721.0D	139.0			QL=6 ST=2 TYP=1
05	245	LEAR	43	NS	0200.0	0202.6	479.0D	410.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0328.6	479.0D	75.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1016.0	1317.1	771.0D	790.0			QL=6 ST=2 TYP=1
	606	LEAR	47	GB	0706.1	0706.3	3.9D	980.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	0706.1	0706.8	3.9	11.0			QL=6 ST=3 TYP=3
	410	LEAR	47	GB	0706.1	0706.8	2.9D	780.0			QL=6 ST=3 TYP=5
	2695	LEAR	4	S/F	0706.1	0706.8	2.7D	46.0			QL=6 ST=3 TYP=3
	606	MANI	47	GB	0706.3	0706.6	2.5D	68.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0706.3	0706.8	3.0D	39.0			QL=5 ST=3 TYP=3
	4995	ATHN	4	S/F	0706.5	0707.1	2.1D	11.0			QL=5 ST=3 TYP=3
	8800	ATHN	8	S	0706.8	0707.3	1.7	4.0			QL=5 ST=3 TYP=4
	1415	MANI	4	S/F	0706.8	0707.6	2.2	9.0			QL=6 ST=2 TYP=4
	606	LEAR	8	S	0946.3	0946.5	.7	9.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0946.3	0946.8	1.0D	940.0			QL=6 ST=2 TYP=5
06	245	LEAR	43	NS	0200.0	0258.0	480.0D	220.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0939.5	480.0D	89.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1017.0	1646.3	391.0D	970.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	1646.0	718.0D	880.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1645.0	1646.0	718.0D	41.0			QL=6 ST=2 TYP=1
07	410	LEAR	43	NS	0200.0	0206.1	481.0D	28.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0351.3	481.0D	210.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1018.0	2210.3	766.0D	230.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	2128.0	718.0D	320.0			QL=6 ST=2 TYP=1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
07	245	PALE	47	GB	0056.1	0057.3	4.9	2000.0			QL=6 ST=2 TYP=5
	8800	MANI	47	GB	0057.0	0058.6	4.5	119.0			QL=6 ST=2 TYP=5
	8800	SGMR	8	S	1352.8	1352.8	1.0	68.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1947.3	1948.8	4.0D	160.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1947.3	1949.0	4.3D	190.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1948.6	1950.6	4.0	18.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1948.8	1949.8	4.3D	40.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1949.6	1950.0	2.4D	380.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1949.6	1950.3	3.5D	24.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2057.5	2058.3	7.8	190.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2058.5	2058.6	.1D	80.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2059.0	2102.5	6.8D	130.0			QL=6 ST=2 TYP=3
08	245	LEAR	43	NS	0200.0	0430.6	481.0D	92.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0859.0	481.0D	740.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1019.0	1615.0	763.0D	170.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	0154.3	718.0D	110.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0204.6	0205.0	2.5D	150.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0204.8	0206.6	2.3D	19.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0205.0	0205.8	2.8	9.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0205.1	0205.6	2.2D	13.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0626.0	0629.5	8.0	9.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0627.3	0631.0	5.7D	59.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0628.1	0628.8	3.7D	27.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0628.1	0629.3	1.5D	9.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0646.6	0648.0	7.0D	270.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0646.6	0648.1	11.2D	270.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0647.0	0648.0	8.0D	380.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0647.0	0648.1	5.5D	35.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0647.0	0648.1	6.1	38.0			QL=2 ST=2 TYP=3
	8800	ATHN	4	S/F	0647.0	0648.1	6.8	400.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0647.0	0648.1	6.1	180.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0647.3	0648.3	7.7	119.0			QL=6 ST=3 TYP=4
	4995	MANI	4	S/F	0647.8	0648.3	6.2D	350.0			QL=6 ST=3 TYP=4
09	410	LEAR	43	NS	0200.0	0924.8	481.0D	100.0			QL=6 ST=3 TYP=1
	245	SGMR	43	NS	1021.0	1359.6	759.0D	430.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1644.0	2219.5	719.0D	160.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1644.0	2219.5	719.0D	210.0			QL=6 ST=2 TYP=1
	410	PALE	4	S/F	0240.1	0244.6	7.2D	370.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0240.3	0245.3	6.8	75.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	0240.8	0244.5	6.3D	110.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1211.8E	1212.6	2.2D	45.0			QL=2 ST=2 TYP=3
	1415	ATHN	4	S/F	1211.8	1212.6	2.5	32.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	1211.8	1213.5	1379.3D	32.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	1212.0	1212.6	1.1	29.0			QL=5 ST=2 TYP=3
	245	SGMR	47	GB	1228.1	1228.5	2.9	1399.0			QL=6 ST=3 TYP=5
	606	SGMR	8	S	1228.1	1228.6	.7D	400.0			QL=6 ST=3 TYP=3
	606	SGMR	8	S	1921.8	1922.6	1.2D	11.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1922.3	1923.0	2.2	200.0			QL=6 ST=2 TYP=3
10	245	SGMR	43	NS	1022.0	1154.8	756.0D	1199.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0414.3	0414.6	.7	119.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0515.1	0516.1	2.4	81.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0515.3	0515.6	3.0D	39.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0515.3	0515.6	7.7D	300.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0515.3	0516.1	11.7	49.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0515.3	0516.3	2.5D	62.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0515.3	0516.3	11.7D	70.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0515.3	0516.5	3.2	45.0			QL=2 ST=2 TYP=3
	1415	LEAR	4	S/F	0515.3	0516.5	4.7	22.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0515.3	0516.6	11.7D	39.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0515.3	0516.8	2.3	28.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0515.5	0516.8	3.1D	17.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	0515.6	0516.3	2.4D	3.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0515.6	0516.8	2.2	35.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0515.6	0516.8	2.4D	43.0			QL=6 ST=2 TYP=4
	8800	ATHN	8	S	0515.8	0516.1	1.7	27.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0643.5	0643.6	.3	370.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0943.3	0943.3	30.0	52.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	245	LEAR	4	S/F	0943.3	0943.3	3.0D	119.0			QL=6 ST=2 TYP=3
11	245	SGMR	43	NS	1023.0	1546.6	814.0D	650.0			QL=6 ST=2 TYP=1
	606	PALE	8	S	0102.8	0103.3	1.0	430.0			QL=6 ST=2 TYP=3
	606	MANI	4	S/F	0517.8	0518.6	2.3D	49.0			QL=6 ST=2 TYP=3
	1415	MANI	8	S	0517.8	0519.1	1.8D	170.0			QL=6 ST=2 TYP=3
	2695	MANI	8	S	0518.0	0518.5	1.6D	2.0			QL=6 ST=2 TYP=4
	4995	MANI	8	S	0518.6	0519.1	.7	42.0			QL=6 ST=2 TYP=4
	245	LEAR	47	GB	0522.6	0523.1	9.9D	1800.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0522.6	0523.5	9.4	290.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0522.6	0524.1	8.0D	61.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0522.6	0524.1	9.4D	77.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0522.8	0524.1	7.8	240.0			QL=2 ST=2 TYP=3
	4995	LEAR	4	S/F	0522.8	0524.1	7.2	69.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0618.5	0618.6	2.3D	119.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0618.5	0618.6	1.8D	800.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0619.5	0620.3	1.5	13.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0807.8	0808.3	3.5D	45.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0807.8	0808.8	1.8D	17.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0808.1	0808.8	2.7	180.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1341.5	1347.0	13.0	110.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1343.0	1346.5	12.0D	94.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1343.0	1347.0	11.0D	37.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1343.0	1349.8	11.0D	21.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1343.3	1347.0	52.3D	89.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1343.6	1346.8	53.9D	48.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1343.6	1347.3	12.2D	100.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1343.6	1359.3	60.5	37.0			QL=6 ST=2 TYP=4
12	245	LEAR	43	NS	0200.0	0423.1	484.0D	54.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1024.0	1459.5	751.0D	410.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0334.8	0335.6	4.5D	95.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0335.6	0336.1	3.2D	15.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0336.0	0336.3	1.0	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0651.0	0651.6	1.6	139.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0810.8	0810.8	.5D	54.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0811.6	0811.6	32.0	6.0			QL=6 ST=2 TYP=3
13	245	SGMR	43	NS	1737.0	1807.6	39.0	59.0			QL=6 ST=2 TYP=1
	245	PALE	4	S/F	0009.0	0010.1	2.1	93.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1310.1	1312.1	5.9D	30.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1310.3	1312.1	5.7D	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1310.8	1312.0	5.2	26.0			QL=6 ST=2 TYP=3
14	410	LEAR	43	NS	0200.0	0204.5	484.0D	41.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	0200.0	0204.6	484.0D	41.0			QL=6 ST=3 TYP=1
	245	SGMR	43	NS	1026.0	2115.3	745.0D	190.0			QL=6 ST=2 TYP=1
	8800	LEAR	4	S/F	0324.8	0325.1	4.3D	94.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0324.8	0325.1	10.2	72.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0324.8	0325.3	4.5D	24.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0324.8	0327.0	7.3D	20.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0324.8	0327.0	6.3	96.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0324.8	0327.0	10.2D	100.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0633.0	0633.1	.5	16.0			QL=6 ST=2 TYP=3
	4995	ATHN	47	GB	0651.8	0738.0	106.8	4700.0			QL=5 ST=2 TYP=5
	8800	LEAR	47	GB	0652.5	0737.5	81.5D	3100.0			QL=6 ST=3 TYP=5
	8800	ATHN	47	GB	0653.0E	0743.1	103.8D	3000.0			QL=5 ST=2 TYP=5
	4995	LEAR	47	GB	0653.0	0745.6	81.0D	4500.0			QL=6 ST=3 TYP=5
	4995	MANI	47	GB	0653.6	0744.6	98.2D	430.0			QL=6 ST=3 TYP=5
	2695	LEAR	47	GB	0653.8	0745.6	80.2D	3000.0			QL=6 ST=3 TYP=5
	2695	MANI	47	GB	0655.0	0745.5	96.3D	4100.0			QL=6 ST=3 TYP=5
	8800	MANI	47	GB	0656.0	0739.0	97.6	3000.0			QL=6 ST=3 TYP=5
	1415	MANI	47	GB	0656.3	0747.6	107.5D	930.0			QL=6 ST=3 TYP=5
	15400	LEAR	47	GB	0656.5	0737.3	93.5	2900.0			QL=6 ST=3 TYP=5
	606	LEAR	47	GB	0657.6	0704.0	75.4D	250.0			QL=6 ST=3 TYP=5
	410	LEAR	47	GB	0658.0	0700.6	67.0D	1399.0			QL=6 ST=3 TYP=5
	606	MANI	47	GB	0659.1	0701.1	112.9D	340.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0659.6	0701.8	62.4D	440.0			QL=6 ST=3 TYP=5
	15400	LEAR	47	GB	0722.0	0737.3	78.0	2900.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	0814.0	0821.3	20.3D	380.0			QL=5 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	4995	LEAR	4	S/F	0814.0	0821.5	21.6D	390.0			QL=5 ST=3 TYP=3
	8800	LEAR	4	S/F	0814.0	0821.5	23.0	320.0			QL=5 ST=3 TYP=3
	606	LEAR	47	GB	0814.6	0909.0	109.4D	1800.0			QL=5 ST=3 TYP=5
	410	LEAR	47	GB	0815.8	0932.6	108.2D	700.0			QL=5 ST=3 TYP=5
	245	LEAR	47	GB	0819.0	0931.8	105.0D	910.0			QL=5 ST=3 TYP=5
	606	MANI	47	GB	0855.6	0907.0	16.7	560.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	0923.3	0950.8	38.0	39.0			QL=6 ST=3 TYP=5
	8800	MANI	4	S/F	0925.1	0927.5	8.2	139.0			QL=6 ST=2 TYP=3
	1415	ATHN	47	GB	0926.1	0927.3	19.0D	139.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0926.1	0930.1	68.2	32.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0926.1	0930.3	9.7	17.0			QL=6 ST=2 TYP=4
	245	SGMR	4	S/F	1045.3	1054.6	16.5	310.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1049.8	1053.0	13.5D	170.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1658.6	1700.8	11.5D	41.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1659.0	1700.5	5.3D	65.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	1659.6	1700.8	3.2	43.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1659.8	1700.5	3.8D	13.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1659.8	1701.1	3.7	11.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1659.8	1701.8	5.8D	68.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1931.0	1934.8	8.6	32.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1931.1	1936.0	9.5D	26.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1931.3	1935.0	8.0D	22.0			QL=6 ST=2 TYP=3
15	245	SGMR	43	NS	1027.0	2014.5	742.0D	61.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	2116.8	714.0D	280.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	2339.0	712.0D	200.0			QL=6 ST=2 TYP=1
	8800	SGMR	8	S	1818.8	1819.5	1.8	260.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2003.1	2003.5	1.5	150.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	2144.1	2144.5	1.9	880.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	2145.3	2145.5	.3D	1300.0			QL=6 ST=2 TYP=5
	410	PALE	8	S	2145.3	2145.5	.3	80.0			QL=6 ST=2 TYP=3
16	410	LEAR	43	NS	0200.0	0346.3	485.0D	9.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0531.8	485.0D	490.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1028.0	1505.6	740.0D	360.0			QL=6 ST=2 TYP=1
	1415	PALE	4	S/F	0107.8	0109.3	4.2D	51.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0107.8	0109.3	4.2D	490.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0107.8	0109.3	4.2D	200.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	0107.8	0109.5	4.2D	1500.0			QL=6 ST=2 TYP=5
	8800	MANI	47	GB	0108.0	0109.5	7.0	1300.0			QL=6 ST=2 TYP=5
	410	PALE	4	S/F	0108.0	0112.3	6.0D	100.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0108.0	0113.3	6.0	119.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0700.6	0701.3	4.0	49.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0759.6	0800.8	4.4D	33.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0759.8	0801.6	30.8	180.0			QL=5 ST=2 TYP=3
	4995	MANI	4	S/F	0800.8	0802.0	2.3	67.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0801.0	0802.6	9.5D	16.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0801.1	0801.5	9.4D	110.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0801.1	0801.6	11.4	100.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0801.1	0802.6	13.4D	119.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0801.1	0802.6	19.2D	150.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	0802.1	0802.8	9.0D	6.0			QL=5 ST=2 TYP=3
	8800	ATHN	47	GB	0933.6	0937.0	55.9	1600.0			QL=5 ST=2 TYP=5
	4995	MANI	4	S/F	0935.3	0936.8	4.7	330.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0935.3	0936.8	5.3D	119.0			QL=6 ST=2 TYP=4
	15400	LEAR	47	GB	0935.6	0951.0	19.4	890.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	1948.6	1948.8	1.4D	46.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1949.6	1950.0	6.4D	47.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1949.8	1949.8	.2D	25.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1950.0	1952.0	5.3D	39.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	1950.3	1952.8	5.7D	43.0			QL=6 ST=3 TYP=5
	4995	PALE	4	S/F	1950.5	1952.6	5.5D	54.0			QL=6 ST=3 TYP=3
	15400	PALE	4	S/F	1950.6	1951.5	5.4D	93.0			QL=6 ST=3 TYP=3
	606	PALE	4	S/F	1950.6	1951.5	5.4	93.0			QL=6 ST=3 TYP=3
	8800	PALE	4	S/F	1950.6	1951.6	5.4D	110.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1950.8	1952.8	5.0D	32.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1951.0	1951.5	5.8	57.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1951.0	1952.5	5.0D	71.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1951.1	1952.8	6.7D	78.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2351.0	2351.3	1.3	119.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
17	245	LEAR	43	NS	0303.0	0840.6	423.0D	13.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1030.0	2222.5	736.0D	76.0			QL=6 ST=2 TYP=1
18	410	LEAR	43	NS	0200.0	0745.6	486.0D	38.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	0200.0	0911.1	486.0D	60.0			QL=6 ST=3 TYP=1
	245	SGMR	43	NS	1030.0	1111.6	734.0D	79.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	0748.1	0801.3	43.9	13.0			QL=5 ST=2 TYP=4
	4995	ATHN	4	S/F	0750.3	0819.6	55.3D	34.0			QL=5 ST=2 TYP=4
	2695	ATHN	4	S/F	0755.1	0823.3	92.0D	19.0			QL=5 ST=2 TYP=4
	8800	ATHN	4	S/F	1251.1	1253.5	6.5	34.0			QL=5 ST=2 TYP=4
	8800	SGMR	4	S/F	1432.5	1438.3	60.0D	100.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1432.5	1438.3	60.0D	130.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1432.8	1439.3	60.0D	18.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1435.6	1438.3	60.0D	36.0			QL=6 ST=2 TYP=4
	15400	SGMR	4	S/F	1436.6	1437.8	60.0	40.0			QL=6 ST=2 TYP=4
19	245	LEAR	43	NS	0745.0	0753.3	142.0D	88.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0745.0	0846.0	142.0D	5.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	0644.8	0646.1	10.5	400.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0645.1	0646.1	16.0D	119.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0645.1	0646.5	22.5D	42.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0646.0	0647.5	6.6D	119.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0646.5	0647.5	7.6	250.0			QL=6 ST=2 TYP=3
	2695	MANI	8	S	0647.1	0647.6	1.9D	49.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0707.6	0708.5	14.5D	9.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0707.6	0708.8	7.0	30.0			QL=6 ST=2 TYP=4
	606	SGMR	8	S	1213.6	1213.8	.2	62.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1217.6	1219.0	3.7	20.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1355.1	1359.0	9.7D	57.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1355.3	1357.6	39.5	280.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1355.3	1357.6	8.7D	200.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1355.3	1357.6	12.2D	250.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1356.0	1358.8	10.5	130.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1416.0	1420.3	13.3D	74.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1417.0	1420.1	10.8D	80.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1417.1	1420.3	10.2D	59.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1417.6	1420.5	7.7	61.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1419.6	1420.1	3.4D	4.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1557.0	1604.5	13.0D	4.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1600.0	1602.3	10.5D	11.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1600.6	1601.1	9.4D	8.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1600.8	1602.3	9.7D	13.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1601.1	1607.8	9.9	11.0			QL=6 ST=2 TYP=4
	8800	MANI	47	GB	2301.0	2306.1	20.8	2000.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	2302.0	2306.8	33.0D	1800.0			QL=6 ST=2 TYP=5
	1415	PALE	4	S/F	2302.0	2307.1	33.0D	460.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2302.0	2311.1	19.5D	26.0			QL=6 ST=2 TYP=3
20	410	LEAR	43	NS	0200.0	0253.0	488.0D	17.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0322.5	488.0D	300.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1100.0	1735.6	701.0D	86.0			QL=6 ST=2 TYP=1
	4995	LEAR	4	S/F	0737.6	0742.1	12.2D	11.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0738.1	0741.1	6.2D	81.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0739.8	0742.0	5.2	17.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0740.6	0741.1	1.4D	11.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0757.6	0759.5	7.0	200.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0757.6	0759.6	8.5D	240.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0758.5	0759.1	6.6	130.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0758.5	0759.3	12.3D	43.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0758.8	0759.5	12.0D	240.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0759.0	0759.5	3.1D	53.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0759.0	0759.6	10.1D	240.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	0759.3	0759.6	1.7D	150.0			QL=6 ST=2 TYP=3
	2695	MANI	8	S	0759.3	0759.6	.8D	69.0			QL=6 ST=2 TYP=4
	8800	MANI	8	S	0759.3	759.6	1.7	88.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1149.0	1152.5	6.8D	27.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1149.8	1152.6	8.5D	47.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1150.6	1152.6	4.0	34.0			QL=5 ST=3 TYP=3
	8800	SGMR	4	S/F	1151.3	1152.6	5.0	9.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1151.6	1152.6	2.4D	33.0			QL=5 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	8800	SGMR	4	S/F	1207.8	1208.6	6.2D	46.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1208.1	1208.5	5.9D	6.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1208.3	1209.0	4.2	51.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1250.6	1252.6	4.0	34.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	1251.6	1252.6	2.4D	33.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	1336.5	1338.5	40.0D	29.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1337.0	1338.6	10.6	13.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	1337.1	1338.6	12.4D	3.0			QL=5 ST=2 TYP=3
21	245	LEAR	43	NS	0500.0	0741.0	309.0	18.0			QL=6 ST=2 TYP=1
	8800	LEAR	47	GB	0349.6	0358.6	11.4D	24.0			QL=6 ST=2 TYP=5
	15400	LEAR	8	S	0357.8	0358.5	1.3	11.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1209.6	1211.3	3.2D	22.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1210.0	1211.5	4.0	64.0			QL=6 ST=3 TYP=3
	4995	ATHN	4	S/F	1211.6	1212.1	9.0D	13.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1211.6	1212.5	9.0	53.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1544.3	1545.3	10.7D	18.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1544.8	1545.3	10.3	9.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1544.8	1545.3	10.2D	16.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1556.3	1558.3	13.5	48.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1556.5	1558.0	13.3D	35.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1556.8	1558.0	13.0D	36.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2109.5	2109.8	23.6	26.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2109.6	2109.8	3.5D	139.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2109.6	2109.8	3.5D	100.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	2109.8	2110.1	1.3	63.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	2350.0	2352.0	5.6	1399.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	2351.3	2353.0	6.7	210.0			QL=6 ST=3 TYP=3
	4995	PALE	47	GB	2351.3	2353.0	6.7D	1100.0			QL=6 ST=3 TYP=5
	8800	PALE	47	GB	2351.3	2353.0	6.7D	1900.0			QL=6 ST=3 TYP=5
	15400	PALE	47	GB	2351.3	2353.0	6.7D	810.0			QL=6 ST=3 TYP=5
22	245	PALE	4	S/F	0005.0	0005.5	2.3	119.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0213.1	0215.6	6.9D	24.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0213.8	0215.8	6.2D	52.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0214.6	0215.8	5.4	44.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	0232.0	0234.3	5.0	340.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	0232.1	0235.5	10.9D	39.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0232.8	0235.3	16.3D	280.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0233.0	0235.1	5.0D	270.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0233.0	0235.1	5.0D	290.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0233.0	0235.3	5.0	39.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0233.0	0235.5	5.0D	130.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0233.1	0235.3	10.9D	310.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0233.1	0235.5	10.9	110.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0320.0	0320.1	1.0D	13.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0320.1	0320.3	1.0	82.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0349.0	0349.1	1.1	5.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0352.3	0353.1	1.7	40.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0453.3	0453.5	.5	9.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0553.3	0553.5	.5	9.0			QL=6 ST=2 TYP=3
	8800	MANI	8	S	0729.1	0729.6	1.0	53.0			QL=6 ST=2 TYP=4
	4995	MANI	8	S	0729.3	0729.6	1.5D	88.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0730.3	0730.6	5.5	47.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0730.3	0730.8	2.3	70.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0730.3	0730.8	1.8D	13.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0730.5	0730.6	2.8D	11.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0730.5	0730.6	5.0D	83.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0730.5	0730.8	2.3D	85.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0815.1	0815.6	1.0D	25.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0815.3	0815.6	1.0	75.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0820.6	0821.8	8.7D	100.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0820.8	0821.8	7.5D	22.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0821.3	0821.6	6.3D	13.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0821.3	0821.8	5.5D	60.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0821.3	0821.8	7.0	39.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0821.3	0821.8	7.2D	110.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0821.6	0821.8	1.5	25.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	2351.3	2353.0	6.7D	1100.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	2351.3	2353.0	6.7	210.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
23	410	LEAR	43	NS	0200.0	0837.0	490.0D	31.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	0200.0	0847.5	490.0D	50.0			QL=6 ST=3 TYP=1
	4995	MANI	4	S/F	0202.0	0203.6	3.0D	70.0			QL=6 ST=2 TYP=4
	4995	LEAR	4	S/F	0202.6	0203.3	2.5D	91.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0202.6	0203.3	2.4	82.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0202.6	0203.3	2.9D	119.0			QL=6 ST=3 TYP=3
	8800	MANI	8	S	0203.0	0203.1	1.8	56.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	0203.0	0204.6	2.0D	66.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0619.8	0620.1	5.2D	230.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0619.8	0620.5	5.2D	74.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0620.0	0620.3	2.0	130.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0620.1	0620.6	6.7	160.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0620.1	0620.6	6.7D	79.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1048.1	1050.3	8.9	46.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1048.6	1050.3	7.9D	44.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1157.8	1159.3	6.5D	13.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1158.1	1159.3	6.2	28.0			QL=6 ST=2 TYP=4
24	410	LEAR	43	NS	0200.0	0315.5	490.0D	21.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0800.6	490.0D	110.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1033.0	2024.0	720.0D	50.0			QL=6 ST=2 TYP=1
	245	PALE	4	S/F	0134.5	0139.8	6.0	220.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0149.8	0150.1	4.2D	39.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0149.8	0150.1	4.7D	34.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0506.0	0507.8	4.0	139.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0506.0	0508.0	4.0D	61.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0506.1	0508.1	18.5D	66.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0506.3	0508.1	19.2	150.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0506.3	0509.1	1212.0D	21.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0656.3	0657.6	2.5	64.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1748.0	1750.1	7.0D	13.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1748.0	1750.3	9.0D	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1748.0	1751.3	8.0	33.0			QL=6 ST=2 TYP=3
25	410	LEAR	43	NS	0304.0	0513.5	427.0D	17.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0340.0	0306.0	391.0D	130.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1700.0	1826.0	332.0D	59.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0325.6	0327.1	3.2D	660.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0326.8	0327.0	.7D	24.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0326.8	0327.1	.5	10.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1124.1	1129.0	16.0D	110.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1125.0	1130.3	15.6	34.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1125.3	1130.6	17.3D	69.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1127.3	1129.3	12.2	11.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1127.3	1130.0	14.7D	27.0			QL=6 ST=2 TYP=3
26	245	SGMR	43	NS	1039.0	1904.1	711.0D	210.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1039.0	2018.8	711.0D	43.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1643.0	1905.1	706.0D	260.0			QL=6 ST=2 TYP=1
	245	SGMR	47	GB	1311.6	1315.8	6.7	1100.0			QL=6 ST=3 TYP=5
	606	SGMR	8	S	2010.6	2011.0	1.4	130.0			QL=6 ST=2 TYP=3
27	245	LEAR	43	NS	0200.0	0849.6	493.0D	81.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1040.0	1910.3	708.0D	100.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1644.0	1912.1	704.0D	91.0			QL=6 ST=2 TYP=1
	606	SGMR	4	S/F	1214.1	1215.0	2.7	54.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1726.3	1726.8	2.5	1399.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	1844.3	1845.1	4.0	130.0			QL=6 ST=2 TYP=3
28	410	LEAR	43	NS	0200.0	0344.3	493.0D	39.0			QL=1 ST=2 TYP=1
	245	LEAR	43	NS	0330.0	0804.1	403.0D	70.0			QL=1 ST=2 TYP=1
	245	SGMR	43	NS	1041.0	2043.5	705.0D	75.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1644.0	0013.6	703.0D	190.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0757.0	0758.0	2.0	180.0			QL=5 ST=2 TYP=3
	1415	ATHN	4	S/F	0757.0	0758.0	2.1D	18.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0757.0	0758.0	1.5D	46.0			QL=6 ST=3 TYP=3
	2695	ATHN	8	S	0757.3	0758.0	1.0	13.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0757.8	0758.0	.5	16.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0758.0	0758.1	.1D	65.0			QL=5 ST=2 TYP=3
29	410	LEAR	43	NS	0200.0	0231.1	494.0D	79.0			QL=6 ST=3 TYP=1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
29	245	LEAR	43	NS	0200.0	0551.3	494.0D	230.0			QL=6 ST=3 TYP=1
	410	SGMR	43	NS	1042.0	1706.0	703.0D	52.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1042.0	1723.8	703.0D	530.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1645.0						QL=6 ST=3 TYP=1
	410	LEAR	47	GB	0350.1	0352.1	4.0D	4100.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0350.6	0353.8	3.7	26.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	0351.0	0352.1	4.0	5200.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	1107.1	1110.1	13.0	35.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1107.6	1110.3	10.7D	13.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1321.1	1321.6	4.7D	24.0			QL=6 ST=2 TYP=4
	2695	ATHN	8	S	1321.1	1321.8	1.7D	6.0			QL=6 ST=2 TYP=4
	8800	ATHN	8	S	1321.3	1321.6	1.2	10.0			QL=6 ST=2 TYP=4
	245	SGMR	4	S/F	1913.0	1914.1	4.1	38.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1914.1	1915.6	2.0D	530.0			QL=6 ST=2 TYP=5
	245	PALE	8	S	1915.0	1915.1	.6	150.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	1915.0	1915.3	.6D	600.0			QL=6 ST=2 TYP=5
30	245	LEAR	43	NS	0200.0	0437.8	494.0D	230.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0805.6	494.0D	56.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1043.0	1156.8	700.0D	70.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1043.0	1452.3	700.0D	600.0			QL=6 ST=2 TYP=1
	4995	LEAR	4	S/F	0612.0	0616.6	12.0D	47.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0612.1	0616.8	47.2	47.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0612.6	0616.8	48.0	130.0			QL=5 ST=2 TYP=4
	8800	LEAR	4	S/F	0613.3	0616.3	1438.7D	119.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0614.3	0616.5	3.7	26.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0758.3	0804.6	10.3D	17.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0801.6	0805.1	22.2	36.0			QL=5 ST=2 TYP=4
	4995	ATHN	4	S/F	0803.5	0805.1	20.3	17.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	0803.6	0806.3	6.2	950.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0804.1	0805.1	18.5D	20.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1105.8	1109.0	21.0	86.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1106.6	1109.0	17.5D	48.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1108.0	1109.3	8.3D	6.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1126.8	1133.3	13.0D	71.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1127.5	1133.5	13.8	31.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1129.8	1135.8	11.8D	85.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1130.0	1135.1	11.5D	43.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2151.3	2157.3	11.3	1300.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2152.1	2157.1	6.9	2400.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
01	410	LEAR	43	NS	0200.0	0341.8	496.0D	56.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0544.1	496.0D	1100.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1044.0	1147.8	697.0D	300.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1044.0	1206.0	697.0D	36.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	0040.1	701.0D	620.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1645.0	0324.6	701.0D	110.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	2032.5	698.0D	240.0			QL=6 ST=2 TYP=1
	4995	PALE	47	GB	0100.0	1645.0	1094.6D	80.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0557.1	0559.1	6.5D	22.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0557.6	0559.3	15.5D	37.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0558.0	0559.6	14.0	24.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0723.1	0724.8	3.9	42.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0723.3	0724.6	4.7D	70.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0921.0	0921.8	4.1D	119.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0921.1	0921.8	1.7	34.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0921.1	0922.1	3.9D	55.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1133.8	1135.5	7.7D	89.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1134.0	1135.6	7.5	130.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1134.0	1135.6	9.1D	270.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	1757.8	1758.5	1.3D	16.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1757.8	1758.5	1.3D	130.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	1757.8	1758.5	1.3D	74.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1757.8	1758.5	1.3	160.0			QL=6 ST=2 TYP=3
02	245	LEAR	43	NS	0200.0	0539.1	496.0D	330.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0810.0	496.0D	36.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1045.0	1537.0	694.0D	110.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1045.0	1857.1	694.0D	37.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	2019.6	697.0D	210.0			QL=6 ST=2 TYP=1
	4995	PALE	47	GB	0100.0	1645.0	1159.0D	80.0			QL=6 ST=2 TYP=5
	1415	ATHN	8	S	0936.5	0937.1	2.0D	39.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	0936.8	0937.0	1.5D	28.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0936.8	0937.0	.8D	13.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	0936.8	0937.0	.5	11.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0959.1	1000.6	3.7D	23.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0959.8	1000.8	2.8	11.0			QL=6 ST=2 TYP=4
	606	SGMR	8	S	1403.0	1403.5	.8	51.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1403.1	1404.0	1.0D	62.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1441.6	1445.6	24.0D	32.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1441.8	1445.6	23.8	52.0			QL=6 ST=2 TYP=4
	2695	SGMR	47	GB	1442.6	1452.1	19.9	2.0			QL=6 ST=2 TYP=5
	410	PALE	4	S/F	2153.5	2201.3	15.5	36.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2155.6	2200.6	14.4D	24.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2156.0	2200.3	13.0D	24.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2156.0	2201.0	13.6D	130.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2156.5	2200.6	13.6D	91.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2157.0	2200.1	8.0D	119.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2157.3	2200.6	6.8	33.0			QL=6 ST=2 TYP=3
03	410	LEAR	43	NS	0200.0	0205.6	497.0D	11.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0747.3	497.0D	170.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1047.0	1557.6	623.0D	170.0			QL=6 ST=3 TYP=1
	1415	PALE	8	S	0031.8	0032.1	1.0	55.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0831.3	0833.8	13.8D	27.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0831.8	0832.5	4.5D	11.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0832.3	0837.8	14.3	13.0			QL=6 ST=2 TYP=4
04	245	LEAR	43	NS	0200.0	0329.1	495.0D	170.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0652.1	495.0D	13.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1048.0	1823.0	688.0D	76.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1648.0	0325.3	690.0D	200.0			QL=6 ST=2 TYP=1
	1415	ATHN	4	S/F	1049.1	1050.1	6.2D	13.0			QL=6 ST=3 TYP=4
	2695	ATHN	47	GB	1049.5	1050.6	7.3D	75.0			QL=6 ST=3 TYP=5
	4995	ATHN	47	GB	1049.6	1050.6	9.0	41.0			QL=6 ST=3 TYP=5
	8800	SGMR	47	GB	1550.5	1600.8	24.6D	330.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1636.3	1640.6	23.7	85.0			QL=6 ST=2 TYP=5
	8800	PALE	8	S	2103.1	2104.1	2.0D	60.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2103.3	2104.3	1.5D	210.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2103.5	2104.3	1.5	370.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2103.6	2104.3	2.7D	18.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
04	2695	PALE	4	S/F	2103.8	2104.1	2.2D	49.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2103.8	2104.1	1.8D	35.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2104.1	2105.1	6.0	24.0			QL=6 ST=2 TYP=3
05	1415	SGMR	43	NS	1237.0	1203.6	577.0D	450.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1237.0	1249.8	577.0D	400.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1237.0	1310.0	577.0D	69.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1237.0	1556.1	577.0D	17.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1648.0	1849.8	687.0D	41.0			QL=6 ST=3 TYP=1
	245	LEAR	4	S/F	0200.0E	0200.3	7.1D	84.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0200.0	0200.3	6.3D	57.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0200.1	0201.1	5.7	70.0			QL=6 ST=3 TYP=3
	100	LEAR	8	S	0200.3E	0207.1		2.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0225.8	0227.0	9.7	59.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0226.1	0226.8	4.7D	139.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0559.6	0602.5	6.7	21.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0600.0	0600.6	3.3D	220.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	0600.0	0602.5	9.1D	53.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0600.0	0602.6	12.3D	22.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0600.1	0602.6	12.2D	47.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0600.3	0601.1	3.5D	35.0			QL=5 ST=2 TYP=3
	1415	LEAR	4	S/F	0600.5	0602.8	3.3D	89.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0600.6	0601.0	1.0D	17.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	0600.6	0601.0	1.0	25.0			QL=5 ST=2 TYP=3
	1415	ATHN	8	S	0600.6	0601.3	1.2D	79.0			QL=5 ST=2 TYP=3
	606	LEAR	8	S	0601.8	0602.3	1.5D	66.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	0601.8	0602.5	1.2	11.0			QL=6 ST=2 TYP=4
	8800	SGMR	47	GB	1144.3	1150.1	52.7D	600.0			QL=6 ST=2 TYP=5
	15400	SGMR	4	S/F	1146.0	1150.1	51.0	270.0			QL=6 ST=2 TYP=3
	1415	SGMR	47	GB	1254.6	1258.3	16.0D	52000.0			QL=6 ST=2 TYP=5
	2695	SGMR	4	S/F	1254.8	1258.8	16.2	220.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1549.1	1606.8	32.7	1500.0			QL=6 ST=2 TYP=5
06	245	LEAR	43	NS	0200.0	0306.0	495.0D	220.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0420.8	495.0D	31.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1050.0	1752.6	682.0D	53.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1050.0	1808.6	682.0D	340.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1648.0	0033.0	687.0D	220.0			QL=6 ST=2 TYP=1
	606	LEAR	4	S/F	0330.0	0334.1	8.6D	25.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0330.6	0331.1	8.0D	26.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0333.6	0334.1	5.5D	52.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0334.1	0334.6	1.5	33.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0334.3	0334.6	2.3D	4.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0334.3	0334.8	3.5D	16.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0335.1	0337.3	8.0D	59.0			QL=6 ST=2 TYP=3
07	245	LEAR	43	NS	0200.0	0332.6	495.0D	210.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0904.5	495.0D	89.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1051.0	1322.0	680.0D	2800.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1051.0	1452.1	680.0D	57.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1649.0	0332.6	686.0D	270.0			QL=6 ST=2 TYP=1
	8800	ATHN	47	GB	1358.3	1412.3	37.8	840.0			QL=5 ST=2 TYP=5
	8800	SGMR	47	GB	1405.1	1412.3	17.0D	500.0			QL=6 ST=2 TYP=5
	15400	SGMR	4	S/F	1409.8	1412.3	7.0	300.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2251.0	2251.5	4.0D	200.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2251.0	2251.5	4.0D	180.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2251.0	2251.5	4.0	65.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2251.0	2251.5	4.0D	139.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2251.0	2251.5	4.0D	40.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2251.0	2251.5	4.0D	47.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2251.0	2251.5	4.0D	150.0			QL=6 ST=2 TYP=3
08	410	LEAR	43	NS	0200.0	0711.8	495.0D	81.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0820.5	495.0D	180.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	0200.0	0905.8	495.0D	11.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1052.0	1441.6	677.0D	60.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1052.0	2007.3	677.0D	460.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1052.0	2028.3	677.0D	39.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1649.0	0046.0	686.0D	430.0			QL=6 ST=2 TYP=1
	1415	LEAR	4	S/F	0204.3	0207.1	9.0	210.0			QL=3 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
08	2695	ATHN	4	S/F	0552.1	0609.6	29.7D	8.0			QL=5 ST=2 TYP=4
	8800	ATHN	4	S/F	0552.6	0608.1	31.0	28.0			QL=5 ST=2 TYP=4
	4995	ATHN	4	S/F	0555.5	0608.3	19.3D	13.0			QL=5 ST=2 TYP=4
	1415	ATHN	4	S/F	0604.3	0610.3	11.0D	4.0			QL=5 ST=2 TYP=4
09	245	LEAR	43	NS	0200.0	0856.5	495.0D	86.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0950.0	495.0D	34.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1052.0	1441.6	677.0D	60.0			QL=6 ST=3 TYP=1
	245	SGMR	43	NS	1052.0	2007.3	677.0D	460.0			QL=6 ST=3 TYP=1
	410	SGMR	43	NS	1052.0	2028.3	677.0D	39.0			QL=6 ST=3 TYP=1
	410	PALE	43	NS	1649.0	2031.1	683.0D	43.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1649.0	2036.8	683.0D	139.0			QL=6 ST=2 TYP=1
	2695	ATHN	4	S/F	0651.8	0710.6	28.3D	32.0			QL=3 ST=2 TYP=4
	1415	ATHN	4	S/F	0652.5	0705.0	24.5D	22.0			QL=3 ST=2 TYP=4
	8800	ATHN	4	S/F	0654.1	0704.8	20.0	9.0			QL=3 ST=2 TYP=4
	4995	ATHN	4	S/F	0700.6	0703.3	15.9D	16.0			QL=3 ST=2 TYP=4
	245	SGMR	47	GB	1407.1	1409.1	2.2	870.0			QL=6 ST=2 TYP=5
	1415	ATHN	47	GB	1524.6	1526.6	4.5	160.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	1525.3	1526.6	2.2	260.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1940.8	1941.1	1.5	400.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1941.0	1941.1	1.1D	119.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	1941.0	1941.1	1.1D	150.0			QL=6 ST=2 TYP=3
10	410	LEAR	43	NS	0200.0	0627.3	495.0D	67.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0715.8	495.0D	170.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	0200.0	0806.1	495.0D	21.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1054.0	1201.3	672.0D	7.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1054.0	1720.1	672.0D	290.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1649.0	2004.3	682.0D	49.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1649.0	2006.3	682.0D	95.0			QL=6 ST=2 TYP=1
11	410	LEAR	43	NS	0200.0	0726.0	495.0D	139.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0937.1	495.0D	200.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1056.0	2128.3	668.0D	110.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0346.5	0347.6	1.5D	150.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0346.6	0347.5	3.2	13.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0346.8	0347.6	2.8D	23.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0347.0	0347.6	2.1D	2.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0347.1	0347.3	1.5D	6.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0645.0	0645.6	3.3	11.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0645.0	0646.0	3.1D	7.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0645.0	0646.1	1.6D	490.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0645.0	0646.1	2.0D	370.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0645.5	0645.8	2.1D	21.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0646.0	0646.1	1.1D	44.0			QL=6 ST=3 TYP=3
	1415	ATHN	8	S	1145.5	1145.8	.8D	15.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	1145.5	1146.0	.8D	71.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	1145.6	1145.8	1.0D	11.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1145.6	1145.8	1.2	8.0			QL=6 ST=2 TYP=4
12	245	LEAR	43	NS	0200.0	0521.1	495.0D	390.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0747.8	495.0D	35.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1057.0	1120.8	665.0D	1600.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1649.0	2334.0	681.0D	1600.0			QL=6 ST=3 TYP=1
	245	LEAR	47	GB	0721.6	0723.0	2.9D	1900.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0721.8	0722.1	2.7	17.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0729.1	0729.3	.2D	500.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0729.3	0729.3	.3	270.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0810.6	0811.6	3.5	890.0			QL=6 ST=3 TYP=5
	245	LEAR	8	S	0820.8	0820.8	1.2D	260.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0820.8	0821.0	3.2	19.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1034.0	1035.8	12.6D	29.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1034.3	1035.5	10.0D	57.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1034.8	1036.1	5.8D	16.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1034.8	1036.1	11.7	17.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1203.1	1210.8	12.7	13.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1205.6	1210.8	13.5D	19.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1206.1	1210.6	8.4D	11.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1206.3	1210.6	6.7D	119.0			QL=6 ST=3 TYP=3
	1415	ATHN	4	S/F	1206.3	1210.6	10.8D	23.0			QL=6 ST=2 TYP=4

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	8800	SGMR	4	S/F	1208.6	1209.6	4.9D	9.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1208.8	1209.8	3.8D	11.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1209.1	1210.5	4.2D	9.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1209.8	1210.8	3.2D	79.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1210.0	1212.3	3.8	180.0			QL=6 ST=3 TYP=3
	245	PALE	4	S/F	1639.0E	1643.1	5.0D	440.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1639.0	1643.1	5.0D	200.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1639.8	1640.5	4.8D	900.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1640.0	1643.3	4.0D	130.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1641.8	1643.5	2.0	22.0			QL=6 ST=2 TYP=3
13	410	LEAR	43	NS	0235.0	0835.6	460.0D	30.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0235.0	0921.6	460.0D	540.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1058.0	1253.1		200.0			QL=6 ST=3 TYP=1
	1415	PALE	47	GB	0125.8	0141.1	43.3D	870.0			QL=6 ST=2 TYP=5
	606	PALE	4	S/F	0125.8	0143.1	43.3	130.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1440.3	1444.5	13.7	18.0			QL=6 ST=2 TYP=3
	1415	SGMR	47	GB	1442.5	1445.1	13.3D	630.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1958.0	1959.1	5.0D	23.0			QL=6 ST=3 TYP=3
	8800	SGMR	8	S	1958.1	1959.1	2.0D	27.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1958.8	1959.0	8.0D	25.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1959.0	1959.3	7.0	1600.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	1959.0	1959.3	8.3	2200.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1959.0	1959.3	8.0D	210.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1959.0	2001.8	7.0D	40.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1959.5	1959.6	7.3D	28.0			QL=6 ST=3 TYP=3
14	245	LEAR	43	NS	0200.0	0506.8	495.0D	15.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0556.3	495.0D	3.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1059.0	1148.6	660.0D	130.0			QL=6 ST=3 TYP=1
	410	PALE	43	NS	1647.0	2122.8	683.0D	79.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1647.0	2317.3	683.0D	1300.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1647.0	2348.6	683.0D	74.0			QL=6 ST=2 TYP=1
	1415	MANI	47	GB	0134.5	0135.6	11.5	230.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0209.3	0209.6	1.2	1100.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0650.8	0651.1	1.3	90.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0819.5	0821.1	2.8	72.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1148.1	1148.5	1.9	130.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1148.5	1153.8	6.5D	53.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1211.3	1211.5	.8	34.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1720.0	1721.0	2.3D	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1720.1	1721.0	2.9	22.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1720.6	1720.8	1.5D	42.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1720.6	1721.0	1.4D	9.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1720.8	1721.0	1.7D	680.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2322.6	2323.1	.9	1000.0			QL=6 ST=3 TYP=5
	606	PALE	8	S	2322.8	2323.0	.5D	48.0			QL=6 ST=3 TYP=3
	1415	PALE	8	S	2322.8	2323.1	.8D	69.0			QL=6 ST=3 TYP=3
15	245	LEAR	43	NS	0200.0	0553.8	495.0D	67.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0623.3	495.0D	79.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1100.0	2004.0	657.0D	71.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1647.0	1859.8	681.0D	70.0			QL=6 ST=2 TYP=1
	2695	ATHN	4	S/F	1450.3	1451.0	6.7D	30.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1450.3	1451.0	6.7D	66.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1450.3	1451.0	6.7	88.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1450.3	1451.1	6.5D	11.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1450.5	1452.0	5.0	1399.0			QL=6 ST=2 TYP=5
16	245	LEAR	43	NS	0200.0	0233.8	495.0D	23.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0725.1	495.0D	150.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0251.8	0252.3	1.3D	220.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0251.8	0252.5	1.0	40.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0629.6	0631.0	4.5D	30.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0630.0	0631.3	1433.3D	1199.0			QL=6 ST=2 TYP=5
	1415	LEAR	8	S	0630.5	0631.3	1.6	28.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0631.5	0632.3	3.1D	5.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0631.5	0632.3	2.6	4.0			QL=6 ST=2 TYP=4
	606	LEAR	8	S	0631.6	0632.3	1.0D	15.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0742.1	0743.8	1.7D	230.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	410	LEAR	8	S	0742.8	0743.1	.8	450.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0850.6	0850.8	2.0	650.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	1202.8	1206.0	6.2	26.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1203.0	1205.3	8.8D	31.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1203.8	1205.5	3.5D	45.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1204.1	1206.1	10.5	13.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1204.3	1205.6	6.5D	29.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1204.3	1205.6	6.8D	18.0			QL=6 ST=2 TYP=4
17	245	LEAR	43	NS	0200.0	0516.5	495.0D	69.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0532.6	495.0D	78.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1103.0	1958.6	651.0D	110.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	0648.1	0658.6	58.9	130.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0650.0	0658.6	54.1D	97.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0653.5	0658.3	16.0D	160.0			QL=5 ST=2 TYP=3
	4995	LEAR	4	S/F	0653.8	0658.5	14.0D	97.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	0653.8	0658.6	14.2D	56.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0654.8	0703.6	13.8D	53.0			QL=5 ST=2 TYP=3
	410	LEAR	4	S/F	0657.8	0700.1	7.0D	110.0			QL=5 ST=2 TYP=3
	15400	LEAR	8	S	0658.0	0658.5	1.3	160.0			QL=5 ST=2 TYP=3
	1415	LEAR	4	S/F	0658.1	0659.8	5.9D	20.0			QL=5 ST=2 TYP=3
	606	LEAR	4	S/F	0658.1	0700.3	4.2D	94.0			QL=5 ST=2 TYP=3
	245	LEAR	4	S/F	0659.1	0700.8	2.9D	74.0			QL=5 ST=2 TYP=3
	410	LEAR	8	S	0758.3	0759.0	.8	100.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1315.5	1319.3	10.0	55.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1315.8	1319.5	6.5D	69.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1316.3	1319.3	6.0D	27.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1318.1	1319.1	3.7D	31.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1318.3	1319.0	2.7D	64.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1318.5	1319.1	2.5D	36.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1318.8	1319.1	1.7	18.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1933.6	1939.3	7.4	550.0			QL=6 ST=2 TYP=5
18	245	LEAR	43	NS	0200.0	0722.8	495.0D	119.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0831.5	495.0D	100.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1104.0	1822.8	648.0D	200.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1933.0	2009.1	515.0D	1199.0			QL=6 ST=2 TYP=1
	1415	LEAR	4	S/F	0349.1	0350.3	5.0D	16.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0349.3	0351.6	6.3D	110.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0349.6	0350.6	7.0D	25.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0349.6	0350.8	5.2	38.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0349.8	0350.6	6.3D	21.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0349.8	0352.1	4.0D	700.0			QL=6 ST=2 TYP=5
	606	MANI	47	GB	0350.0	0351.1	3.6	57.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0350.0	0351.5	18.0D	750.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	0350.3	0351.6	17.7D	330.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0906.3	0906.8	1.8	200.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0906.5	0907.0	1.0D	27.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0910.8	0915.6	16.2D	48.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0911.3	0915.6	15.0D	83.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0911.5	0915.1	28.1	98.0			QL=6 ST=2 TYP=4
	1415	LEAR	4	S/F	0911.6	0912.6	16.0D	26.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0912.0	0915.1	22.8	130.0			QL=6 ST=3 TYP=4
	8800	LEAR	4	S/F	0912.0	0915.3	11.0D	53.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0913.6	0915.5	5.5	48.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1347.0	1347.8	2.5	5.0			QL=6 ST=3 TYP=3
	410	SGMR	8	S	1347.0	1348.0	1.5D	110.0			QL=6 ST=3 TYP=3
	2695	SGMR	8	S	1347.5	1348.1	2.0D	13.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1347.6	1348.0	.7D	210.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1547.0	1547.8	2.5	5.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1547.0	1548.0	1.5D	110.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1547.5	1548.1	2.0D	13.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1547.6	1548.0	.7D	210.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	2352.1	2352.5	1.7D	15.0			QL=6 ST=2 TYP=4
	8800	MANI	8	S	2352.1	2352.5	1.0	69.0			QL=6 ST=2 TYP=4
19	410	LEAR	43	NS	0200.0	0914.3	495.0D	67.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	0200.0	0952.6	495.0D	170.0			QL=6 ST=3 TYP=1
	245	SGMR	43	NS	1105.0						QL=6 ST=3 TYP=1
	245	PALE	43	NS	1644.0	2333.6	682.0D	100.0			QL=6 ST=2 TYP=1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
19	1415	PALE	4	S/F	0019.6	0021.6	5.4	42.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0019.6	0023.1	6.4D	71.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0019.6	0023.1	6.4	139.0			QL=6 ST=2 TYP=4
	4995	PALE	4	S/F	0020.0	0022.5	5.5D	49.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0020.1	0022.6	6.0D	170.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0020.6	0021.0	5.4D	160.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0020.6	0022.8	4.7D	75.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0021.0	0023.1	5.0D	51.0			QL=6 ST=2 TYP=4
	1415	PALE	4	S/F	0300.1	0301.0	11.2	51.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0300.1	0304.1	11.2D	170.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0300.1	0304.3	11.2D	76.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0300.3	0304.1	11.0D	93.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	0416.6	0418.6	9.4	2100.0			QL=6 ST=2 TYP=5
	2695	LEAR	8	S	0452.6	0453.6	1.4	17.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0453.0	0453.3	1.0D	139.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0453.0	0453.6	1.0D	11.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0453.0	0501.0	9.0D	28.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0453.0	0501.0	9.0	11.0			QL=6 ST=2 TYP=4
	1415	MANI	47	GB	0453.1	0500.8	8.9D	440.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0459.0	0500.3	2.0	29.0			QL=6 ST=3 TYP=3
	4995	LEAR	8	S	0459.0	0500.6	1.8D	21.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0459.1	0500.5	1.7D	480.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0459.3	0500.6	3.7D	40.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0459.3	0500.8	1.7D	28.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0459.5	0500.6	1.5D	250.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0618.1	0621.1	6.5D	58.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0619.1	0619.3	3.0D	180.0			QL=6 ST=2 TYP=3
	1415	ATHN	47	GB	0619.1	0619.3	1.0	130.0			QL=6 ST=2 TYP=5
	4995	MANI	4	S/F	0619.3	0621.6	5.3D	7.0			QL=6 ST=2 TYP=4
	1415	ATHN	47	GB	0620.6	0621.6	2.0	74.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0620.8	0621.0	.8D	40.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0620.8	0621.1	1.2D	180.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	0620.8	0621.1	1.8	45.0			QL=5 ST=2 TYP=3
	8800	LEAR	8	S	0620.8	0621.3	1.0	28.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0621.0	0621.3	1.8D	22.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0621.1	0621.1	2.2	16.0			QL=5 ST=2 TYP=3
	4995	ATHN	8	S	0621.1	0621.3	2.0	13.0			QL=6 ST=2 TYP=3
	2695	MANI	47	GB	0621.1	0621.6	1.0D	48.0			QL=6 ST=2 TYP=5
	8800	MANI	8	S	0621.1	0621.6	2.0	17.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1101.0	1103.1	11.8	28.0			QL=5 ST=2 TYP=4
	4995	ATHN	4	S/F	1101.8	1107.6	11.7D	11.0			QL=5 ST=2 TYP=4
	2695	ATHN	4	S/F	1102.6	1106.6	9.4D	8.0			QL=5 ST=2 TYP=4
	8800	ATHN	47	GB	1153.6	1157.1	78.5	6400.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1155.1	1157.3	15.9	9000.0			QL=6 ST=2 TYP=5
	2695	SGMR	4	S/F	1619.1	1621.1	8.5D	34.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1619.1	1621.1	8.7D	55.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1620.1	1621.1	9.0D	71.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1620.1	1621.6	6.5	42.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	2314.6	2315.8	4.4	44.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	2314.6	2317.3	4.4D	17.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	2316.0	2317.3	3.0D	29.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	2316.0	2317.3	6.0D	8.0			QL=6 ST=2 TYP=4
20	410	LEAR	43	NS	0200.0	0303.6	494.0D	15.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	0200.0	0340.6	494.0D	15.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0802.1	494.0D	60.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1106.0	1644.6	643.0D	150.0			QL=6 ST=2 TYP=1
	8800	LEAR	8	S	0256.5	0257.0	1.1D	44.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0256.6	0257.1	1.0	60.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	0256.8	0257.1	2.0D	11.0			QL=6 ST=2 TYP=4
	8800	MANI	8	S	0256.8	0257.1	1.2	30.0			QL=6 ST=2 TYP=4
	4995	LEAR	8	S	0256.8	0257.1	.7D	18.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0301.1	0304.0	6.5D	17.0			QL=6 ST=2 TYP=5
	4995	MANI	4	S/F	0302.1	0304.8	6.7D	130.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0302.1	0304.8	4.4	110.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0303.6	0304.6	4.2D	119.0			QL=6 ST=2 TYP=3
	1415	LEAR	47	GB	0520.1	0522.8	3.0	62.0			QL=6 ST=2 TYP=5
	1415	MANI	47	GB	0520.8	0523.0	3.5	33.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0551.5	0554.1	6.3D	450.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0551.5	0554.1	5.1D	330.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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OCTOBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
20	606	LEAR	4	S/F	0551.6	0552.1	2.2D	32.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0551.6	0554.3	7.0D	310.0			QL=6 ST=2 TYP=3
	606	MANI	47	GB	0552.0	0552.8	2.5D	10.0			QL=6 ST=2 TYP=5
	4995	MANI	4	S/F	0552.1	0554.5	10.2D	480.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0552.5	0554.1	3.3	280.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0552.8	0554.5	6.5	430.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0553.1	0554.3	3.5D	32.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0553.6	0554.6	7.7D	290.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0553.6	0555.0	4.4D	16.0			QL=6 ST=2 TYP=4
	606	MANI	47	GB	0640.0	0640.5	2.1	29.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	0944.3	0947.5	17.5	11.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0945.1	0947.8	8.7D	13.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0945.6	0949.8	7.0	24.0			QL=5 ST=2 TYP=4
	4995	ATHN	4	S/F	1151.5	1154.0	11.8D	160.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	1151.5	1154.0	17.0	170.0			QL=6 ST=3 TYP=3
	2695	ATHN	4	S/F	1151.6	1154.1	15.5D	67.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1151.6	1154.5	5.5D	119.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1151.8	1154.6	4.7D	65.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1151.8	1154.6	5.2D	170.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1152.3	1154.6	3.8	61.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1519.0	1520.6	18.6	36.0			QL=6 ST=3 TYP=4
	2695	SGMR	4	S/F	1519.0	1521.3	19.6D	15.0			QL=6 ST=3 TYP=4
	4995	SGMR	4	S/F	1519.6	1520.8	18.4D	18.0			QL=6 ST=3 TYP=4
	245	SGMR	47	GB	1744.0	1744.6	1.5	760.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1822.1	1822.5	5.7D	29.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1822.8	1827.1	20.2D	54.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1823.1	1824.0	19.4D	61.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1823.3	1824.1	20.7	98.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1823.5	1823.8	9.5D	59.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1823.5	1823.8	9.5D	110.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1823.5	1827.6	9.5	56.0			QL=6 ST=2 TYP=3
21	410	LEAR	43	NS	0200.0	0531.0	494.0D	13.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0638.8	494.0D	62.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1108.0	2007.3	640.0D	73.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1646.0	1707.1	675.0D	26.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0336.0	0336.1	.5	119.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0336.0	0336.1	.3D	33.0			QL=6 ST=3 TYP=3
	4995	LEAR	47	GB	0348.3	0353.8	12.7	15.0			QL=6 ST=2 TYP=5
	1415	MANI	47	GB	0348.5	0349.3	3.1	17.0			QL=6 ST=2 TYP=5
	606	MANI	47	GB	0507.1	0517.0	13.7	77.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0633.1	0633.1	1.0D	97.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0633.1	0633.3	.7	6.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1212.3	1218.1	8.7D	139.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1212.3	1218.1	8.7D	139.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1214.0	1218.1	7.6D	72.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1214.1	1218.1	7.5	180.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1214.3	1218.0	6.5D	200.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1215.6	1218.3	4.0	60.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1236.0	1242.3	21.3	20.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1236.3	1242.3	17.5D	13.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1323.6	1328.3	11.0D	90.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1323.8	1327.8	10.0D	220.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1325.1	1327.8	10.4D	180.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1325.3	1327.8	16.5D	230.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1325.6	1327.8	16.2	190.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1327.1	1328.8	4.5	350.0			QL=6 ST=2 TYP=3
22	245	LEAR	43	NS	0200.0	0445.6	494.0D	48.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0552.6	494.0D	18.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1109.0	1435.3	637.0D	35.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1940.0	2216.1	500.0D	110.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0103.0	0110.6	7.8	740.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	0631.0	0631.5	9.0D	26.0			QL=3 ST=2 TYP=4
	8800	ATHN	4	S/F	0631.8	0632.0	8.2	21.0			QL=3 ST=2 TYP=4
	4995	SGMR	4	S/F	1542.3	1543.1	7.7D	130.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1542.3	1543.1	5.0D	19.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1542.3	1543.1	5.8D	220.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1542.8	1543.3	3.3	119.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1819.0	1819.6	1.6D	16.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	8800	SGMR	4	S/F	1819.1	1820.0	2.7D	51.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1819.3	1819.5	1.5D	51.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1819.8	1820.5	2.2	24.0			QL=6 ST=2 TYP=3
23	410	LEAR	43	NS	0200.0	0701.8	494.0D	34.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	0200.0	0711.6	494.0D	280.0			QL=6 ST=3 TYP=1
	245	SGMR	43	NS	1110.0	1746.0	635.0D	1900.0			QL=6 ST=2 TYP=1
	606	PALE	8	S	2051.5	2051.6	.3D	160.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	2051.5	2051.6	.3	500.0			QL=6 ST=3 TYP=5
	410	PALE	47	GB	2051.5	2051.6	.3D	730.0			QL=6 ST=3 TYP=5
24	245	LEAR	43	NS	0200.0	0633.1	494.0D	320.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0430.0	0739.1	344.0D	13.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1111.0	1157.0	632.0D	36.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1111.0	1545.6	632.0D	1399.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1650.0	1833.6	670.0D	650.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1650.0	2127.0	670.0D	360.0			QL=6 ST=2 TYP=1
	245	SGMR	47	GB	1345.3	1347.0	3.2	1100.0			QL=6 ST=3 TYP=5
	410	SGMR	4	S/F	1345.5	1347.0	3.0D	19.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1549.5	1550.6	2.0	190.0			QL=6 ST=3 TYP=5
25	245	LEAR	43	NS	0200.0	0343.8	495.0D	320.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0447.1	495.0D	87.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1112.0						QL=6 ST=3 TYP=1
	245	SGMR	44	NS	1112.0E	1406.8	174.8D	240.0			QL=6 ST=3 TYP=1
	8800	MANI	4	S/F	0137.1	0138.3	4.7	38.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0137.6	0138.6	3.7D	8.0			QL=6 ST=2 TYP=4
	15400	SGMR	4	S/F	2042.5	2047.8	16.0	150.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2045.5	2047.5	7.5D	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2045.6	2047.3	7.4D	29.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2046.1	2047.3	5.9D	37.0			QL=6 ST=2 TYP=3
26	410	LEAR	43	NS	0200.0	0252.6	495.0D	86.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0534.8	495.0D	210.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1114.0	1215.6	626.0D	73.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1114.0	1935.0	626.0D	380.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1650.0	2334.1	672.0D	260.0			QL=6 ST=2 TYP=1
	1415	LEAR	8	S	0449.5	0449.8	.6	9.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0449.6	0449.6	.2D	59.0			QL=6 ST=2 TYP=3
27	245	LEAR	43	NS	0200.0	0234.6	495.0D	170.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0352.6	495.0D	84.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1115.0	1438.3	624.0D	160.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1115.0	1522.8	624.0D	59.0			QL=6 ST=2 TYP=1
28	245	LEAR	43	NS	0200.0	0312.6	496.0D	119.0			QL=5 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0603.0	496.0D	58.0			QL=5 ST=2 TYP=1
	410	SGMR	43	NS	1116.0	1308.1	620.0D	37.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1116.0	1517.5	620.0D	320.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1650.0	1853.3	668.0D	68.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1650.0	2204.1	668.0D	310.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0646.0	0646.3	4.1D	47.0			QL=5 ST=3 TYP=3
	410	LEAR	8	S	0647.1	0648.3	1.5D	230.0			QL=5 ST=3 TYP=3
	1415	LEAR	8	S	0648.3	0648.6	.5	170.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0648.6	0648.6	.2	13.0			QL=5 ST=3 TYP=3
29	410	LEAR	43	NS	0200.0	0613.6	496.0D	73.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0921.6	496.0D	180.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1117.0	1950.1	619.0D	250.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1651.0	2019.8	666.0D	190.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1736.0	1822.8	240.0D	73.0			QL=6 ST=2 TYP=1
	410	LEAR	47	GB	0617.6	0618.1	.7D	1900.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0618.0	0618.1	.3	60.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1205.0	1208.5	4.1D	530.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1206.0	1208.5	3.8	190.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	1208.6	1208.6	1.4D	13.0			QL=6 ST=2 TYP=4
	8800	ATHN	8	S	1208.6	1208.8	1.2	8.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1937.3	1939.0	6.2D	96.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1937.8	1939.1	4.8	66.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1938.6	1939.1	1.4D	4000.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	245	PALE	8	S	1949.6	1950.1	1.2	210.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	1949.8	1950.1	1.0D	68.0			QL=6 ST=2 TYP=3
30	410	LEAR	43	NS	0636.0	0730.0	220.0D	72.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0636.0	0817.1	220.0D	280.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1119.0	1312.6	616.0D	20.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1119.0	1322.3	616.0D	170.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1652.0	0038.8	664.0D	150.0			QL=6 ST=2 TYP=1
31	410	SGMR	43	NS	1120.0	1528.5	613.0D	52.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1120.0	2052.0	613.0D	250.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1652.0	0233.8	664.0D	280.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1652.0	0319.8	664.0D	24.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0418.6	0419.1	5.5	190.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1948.0	1949.8	2.8	100.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1950.0	1950.8	2.0D	82.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1950.0	1950.8	3.0D	370.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
01	245	LEAR	43	NS	0200.0	0233.6	497.0D	220.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0806.8	497.0D	97.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1123.0	1520.1	609.0D	65.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1123.0	1520.5	609.0D	19.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1652.0	2148.1	663.0D	360.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0800.0	0806.3	11.1D	150.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0803.8	0806.8	5.0	130.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0805.6	0806.6	3.7D	99.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0808.8	0815.0	13.2D	119.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0811.6	0815.5	14.4D	91.0			QL=6 ST=3 TYP=3
	410	LEAR	47	GB	0811.6	0815.6	14.9D	1700.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	0811.8	0815.3	6.3D	130.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0811.8	0815.5	12.3D	78.0			QL=6 ST=3 TYP=3
	4995	LEAR	8	S	0812.0	0815.5		130.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0812.1	0815.6	6.7D	21.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0812.5	0815.1	13.1D	110.0			QL=6 ST=3 TYP=3
	4995	ATHN	4	S/F	0812.5	0815.3	7.0D	139.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0812.8	0815.6	9.8	58.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0813.0	0818.0	15.6D	84.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	0813.5	0815.3	8.5	82.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0813.5	0816.0	3.8D	8.0			QL=6 ST=2 TYP=3
02	245	LEAR	43	NS	0300.0	0844.1	438.0D	190.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0300.0	0907.6	438.0D	170.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1122.0	1223.6	609.0D	119.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1122.0	1348.1	609.0D	220.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1652.0	2011.0	661.0D	160.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0830.3	0831.1	2.0D	160.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0830.8	0831.1	1.3	250.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0847.0	0848.1	2.0	580.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0947.3	0947.6	1.0	91.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0947.3	0947.8	2.5D	330.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1234.0	1235.0	1.6	150.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1238.6	1238.8	3.7D	110.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1238.6	1239.3	3.4	470.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1303.6	1307.1	7.0D	60.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1303.6	1308.8	7.9	33.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1450.1	1450.6	2.7	580.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	1856.3	1856.5	.3D	220.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1856.3	1856.5	.3	190.0			QL=6 ST=2 TYP=3
03	245	LEAR	43	NS	0200.0	0909.6	498.0D	74.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1124.0	1450.3	605.0D	660.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1124.0	1631.1	605.0D	25.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1653.0	2139.1	659.0D	220.0			QL=6 ST=2 TYP=1
	4995	SGMR	47	GB	0314.1	1442.0	688.7D				QL=3 ST=3 TYP=5
	410	SGMR	47	GB	0346.0	1442.1	657.1D				QL=3 ST=3 TYP=5
	1415	LEAR	8	S	0758.8	0758.8	.5	34.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0759.6	0800.6	2.0D	480.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1440.1	1442.6	4.2D	420.0			QL=3 ST=3 TYP=3
	4995	ATHN	4	S/F	1440.1	1442.6	6.7D	22.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1440.8	1442.5	5.3	22.0			QL=6 ST=2 TYP=4
	2695	SGMR	8	S	1441.6	1442.3	1.7D	40.0			QL=3 ST=3 TYP=3
	1415	ATHN	4	S/F	1441.6	1442.8	2.2D	13.0			QL=6 ST=2 TYP=4
	4995	SGMR	8	S	1441.8	1442.6	1.3D	23.0			QL=3 ST=3 TYP=3
	410	SGMR	4	S/F	1442.0	1442.8	2.5	45.0			QL=6 ST=3 TYP=3
	8800	SGMR	8	S	1442.1	1442.6	1.0	15.0			QL=3 ST=3 TYP=3
	606	SGMR	4	S/F	1442.1	1443.1	2.5	15.0			QL=2 ST=3 TYP=3
	245	SGMR	47	GB	1800.3	1802.5	5.5D	760.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1800.8	1802.1	3.2	22.0			QL=3 ST=2 TYP=3
	2695	SGMR	4	S/F	1801.0	1802.0	3.3D	8.0			QL=3 ST=2 TYP=3
	245	PALE	47	GB	1801.1	1802.3	3.0	560.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1801.1	1803.0	3.4	13.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1801.8	1802.0	1.2	9.0			QL=2 ST=2 TYP=3
05	410	PALE	43	NS	1653.0	0218.5	657.0D	420.0			QL=6 ST=3 TYP=1
	245	PALE	44	NS	1653.0E	2014.8	657.0D	860.0			QL=6 ST=3 TYP=1
	1415	PALE	4	S/F	0314.1	0317.5	16.9	230.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1126.0	2014.1	601.0D	840.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	1241.1	1302.1	22.9	50.0			QL=6 ST=3 TYP=4

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
05	245	PALE	47	GB	1736.8	1740.6	6.2	1500.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1738.3	1740.6	4.5	2000.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1808.0	1809.1	2.0	1800.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1808.1	1809.0	1.5	2000.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	1828.3	1830.3	15.7D	1600.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	1828.3	1832.8	15.7	370.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1828.3	1838.0	15.7D	1100.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1829.5	1831.1	8.5D	18.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1829.5	1831.1	8.5D	35.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1829.5	1831.1	8.5D	27.0			QL=6 ST=3 TYP=3
	410	SGMR	47	GB	1830.5	1838.3	9.5D	2800.0			QL=6 ST=3 TYP=5
	245	SGMR	47	GB	1832.0	1832.8	8.0	610.0			QL=6 ST=3 TYP=5
	1415	PALE	8	S	1922.3	1923.6	1.7	250.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2003.6	2006.3	3.0	190.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2025.1	2025.5	.7	170.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2034.8	2035.8	4.0D	29.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2035.0	2035.8	2.6D	40.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2035.0	2036.1	3.1D	18.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2035.3	2035.8	1.0	470.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2035.3	2035.8	2.2	480.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	2035.3	2035.8	1.0D	740.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	2035.3	2036.0	2.5D	240.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2044.0	2045.3	3.0D	21.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2044.8	2045.3	2.0D	27.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2047.0	2047.5	1.0	90.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2047.0	2047.5	1.0D	93.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2105.0	2107.1	7.0	170.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2105.1	2105.3	6.9D	67.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	2242.6	2258.0	22.4D	36.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	2242.8	2257.1	22.2	110.0			QL=6 ST=2 TYP=4
	245	PALE	47	GB	2316.6	2317.1	3.0	690.0			QL=6 ST=2 TYP=5
	410	PALE	49	GB	2346.5	2347.5	19.5D	5300.0			QL=6 ST=2 TYP=7
	245	PALE	49	GB	2346.6	2347.0	9.7	3100.0			QL=6 ST=2 TYP=7
	15400	PALE	49	GB	2346.6	2347.3	9.2D	2600.0			QL=6 ST=2 TYP=7
	606	PALE	49	GB	2346.6	2347.6	17.7D	750.0			QL=6 ST=2 TYP=7
	4995	PALE	49	GB	2346.8	2347.3	12.0D	680.0			QL=6 ST=2 TYP=7
	8800	PALE	49	GB	2346.8	2347.3	12.0D	1399.0			QL=6 ST=2 TYP=7
	2695	PALE	49	GB	2346.8	2347.3	13.0D	610.0			QL=6 ST=2 TYP=7
	1415	PALE	49	GB	2346.8	2348.1	17.5D	480.0			QL=6 ST=2 TYP=7
	8800	MANI	47	GB	2347.0	2347.5	7.6	1500.0			QL=6 ST=3 TYP=5
	4995	MANI	47	GB	2347.0	2347.6	9.8D	800.0			QL=6 ST=3 TYP=5
	2695	MANI	47	GB	2347.1	2347.6	14.4D	62.0			QL=6 ST=3 TYP=5
	1415	MANI	47	GB	2347.1	2347.8	14.4D	470.0			QL=6 ST=3 TYP=5
06	245	PALE	43	NS	1653.0	2211.6	657.0D	450.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1653.0	2214.1	657.0D	220.0			QL=6 ST=2 TYP=1
	15400	LEAR	47	GB	0913.6	0920.3	43.4D	240.0			QL=4 ST=2 TYP=5
07	606	LEAR	43	NS	0200.0	0405.6	504.0D	19.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0519.1	504.0D	53.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0731.1	504.0D	390.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1129.0	1615.1	596.0D	500.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1129.0	1910.6	596.0D	44.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1655.0	1916.5	654.0D	220.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1655.0	2138.8	654.0D	72.0			QL=6 ST=2 TYP=1
	4995	MANI	4	S/F	0101.3	0102.3	6.5D	32.0			QL=6 ST=3 TYP=4
	8800	MANI	4	S/F	0101.3	0102.8	7.2	73.0			QL=6 ST=3 TYP=4
	606	MANI	4	S/F	0110.6	0111.0	3.0D	28.0			QL=6 ST=3 TYP=4
	8800	PALE	47	GB	0200.8	0210.5	14.0	650.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0302.3	0303.3	3.0D	540.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0302.3	0303.5	3.5D	79.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0302.6	0303.5	3.0	139.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0332.3	0339.6	8.2	25.0			QL=6 ST=2 TYP=5
	4995	MANI	8	S	0345.3	0346.0	1.8D	16.0			QL=6 ST=2 TYP=4
	8800	MANI	8	S	0345.3	0346.0	1.8	52.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0402.6	0402.6	2.2	88.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0402.8	0403.0	2.2D	490.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0504.8	0506.8	3.2D	18.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0504.8	0506.8	3.3	75.0			QL=6 ST=2 TYP=4
	8800	LEAR	8	S	0506.1	0506.6	1.9	53.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
07	4995	LEAR	8	S	0506.3	0506.6	1.3D	17.0			QL=6 ST=2 TYP=3
	8800	MANI	8	S	0519.6	0520.0	1.9	16.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0519.6	0520.3	2.2D	16.0			QL=6 ST=2 TYP=4
	8800	LEAR	8	S	0608.0	0608.1	.6D	36.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0608.1	0608.3	1.7	88.0			QL=6 ST=2 TYP=3
	8800	MANI	8	S	0608.3	0608.8	.7	33.0			QL=6 ST=2 TYP=4
	4995	MANI	8	S	0608.3	0608.8	.7D	9.0			QL=6 ST=2 TYP=4
	410	LEAR	8	S	0631.1	0631.3	.4	19.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0631.1	0631.3	.9D	640.0			QL=6 ST=3 TYP=5
	606	LEAR	8	S	0635.5	0635.6	.1	48.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0637.3	0637.8	1.7D	38.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	0637.3	0638.8	5.5	38.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0637.5	0637.8	1.6D	330.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	1133.8	1135.1	8.7	26.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1134.0	1135.0	10.8D	29.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1134.0	1135.0	4.1D	37.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	1217.3	1218.6	2.3D	1900.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1218.1	1218.3	.7	390.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1320.8	1322.0	4.5	22.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	1338.8	1340.1	2.7	880.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1834.3	1835.1	2.3	1500.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1835.3E	1835.5	1.8D	2200.0			QL=6 ST=2 TYP=5
09	245	LEAR	43	NS	0200.0	0211.1	506.0D	350.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0511.0	506.0D	260.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1131.0	1226.0	591.0D	49.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1131.0	1756.1	591.0D	180.0			QL=6 ST=2 TYP=1
	2695	LEAR	49	GB	0302.0	0304.8	17.3D	1600.0			QL=6 ST=3 TYP=7
	8800	LEAR	49	GB	0302.0	0305.0	17.1D	3100.0			QL=6 ST=3 TYP=7
	4995	LEAR	49	GB	0302.0	0305.8	16.0D	2000.0			QL=6 ST=3 TYP=7
	15400	LEAR	49	GB	0302.6	0304.8	10.5	6900.0			QL=6 ST=3 TYP=7
	1415	LEAR	49	GB	0303.1	0305.0	13.9D	920.0			QL=6 ST=3 TYP=7
	606	LEAR	49	GB	0303.3	0305.6	24.7D	13999.0			QL=6 ST=3 TYP=7
	410	LEAR	49	GB	0303.3	0306.0	7.7D	25000.0			QL=6 ST=3 TYP=7
	245	LEAR	49	GB	0303.3	0307.0	6.5D	39000.0			QL=6 ST=3 TYP=7
	8800	ATHN	47	GB	0602.1	0603.6	8.9	1600.0			QL=5 ST=3 TYP=5
	4995	ATHN	47	GB	0602.1	0603.6	8.5D	680.0			QL=5 ST=3 TYP=5
	1415	ATHN	4	S/F	0602.1	0604.1	8.2D	200.0			QL=5 ST=3 TYP=3
	2695	LEAR	4	S/F	0924.1	0924.8	2.2D	38.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0924.1	0924.8	1.5D	88.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0924.1	0924.8	2.0	47.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1349.6	1353.3	4.7	43.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1352.8	1353.0	2.2	16.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1353.0	1353.6	2.1D	61.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1353.1	1353.3	5.9D	320.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1438.8	1445.8	11.3	1300.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1445.5	1446.1	4.3	110.0			QL=2 ST=2 TYP=3
	410	SGMR	4	S/F	1921.5	1922.8	12.5D	340.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1921.5	1924.5	12.5	390.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1922.0	1926.3	6.0	53.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1923.5	1926.8	4.5D	24.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1925.3	1927.0	3.2D	25.0			QL=6 ST=3 TYP=3
10	606	LEAR	43	NS	0200.0	0309.1	507.0D	11.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0630.8	507.0D	35.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0720.6	507.0D	470.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1133.0	1315.0	588.0D	57.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1133.0	1658.3	588.0D	1500.0			QL=6 ST=2 TYP=1
	606	LEAR	4	S/F	0236.8	0245.8	42.8D	70.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0237.0	0240.1	42.6	370.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0237.8	0308.3	41.8D	41.0			QL=6 ST=2 TYP=4
	245	LEAR	47	GB	0407.0	0410.8	5.0D	290.0			QL=6 ST=2 TYP=5
	606	MANI	47	GB	0410.1	0411.1	6.9	22.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0410.3	0410.3	2.8	59.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0547.8	0552.3	5.2	720.0			QL=6 ST=2 TYP=5
	8800	LEAR	49	GB	0640.3	0642.1	9.8D	3600.0			QL=6 ST=2 TYP=7
	4995	LEAR	49	GB	0640.5	0642.1	8.6D	2100.0			QL=6 ST=2 TYP=7
	2695	LEAR	49	GB	0640.5	0642.1	8.5D	1300.0			QL=6 ST=2 TYP=7
	8800	ATHN	47	GB	0640.6E	0642.1	28.7D	3300.0			QL=5 ST=2 TYP=5
	15400	LEAR	49	GB	0640.8	0642.0	8.3	4500.0			QL=6 ST=2 TYP=7

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	410	LEAR	49	GB	0640.8	0643.5	20.2D	64000.0			QL=6 ST=2 TYP=7
	1415	LEAR	49	GB	0641.1	0642.3	13.9D	500.0			QL=6 ST=2 TYP=7
	606	LEAR	49	GB	0641.1	0643.5	19.7D	4100.0			QL=6 ST=2 TYP=7
	245	LEAR	49	GB	0641.5	0643.5	7.5D	70000.0			QL=6 ST=2 TYP=7
	2695	LEAR	4	S/F	0701.0	0705.8	6.6D	86.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0701.5	0705.8	6.1D	680.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0701.8	0703.8	4.8D	1199.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	0702.1	0705.6	4.7	40.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0702.5	0703.1	1.6D	25.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0757.5	0757.8	4.0	1399.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0803.1	0809.1	13.9	130.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0907.1	0907.3	4.0D	69.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0907.1	0907.3	4.2	210.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1156.3	1202.6	38.5D	42.0			QL=5 ST=3 TYP=4
	8800	ATHN	4	S/F	1156.5	1202.6	38.3	56.0			QL=5 ST=3 TYP=4
	410	SGMR	4	S/F	1215.0E	1219.0	8.1D	139.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1215.0	1219.0	8.1D	160.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1215.6	1218.8	9.7	360.0			QL=5 ST=3 TYP=3
	4995	ATHN	4	S/F	1215.6	1219.1	10.7D	240.0			QL=5 ST=3 TYP=3
	8800	SGMR	4	S/F	1215.6	1219.1	10.7D	93.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1216.0	1219.1	9.0D	139.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1216.1	1219.3	4.7	90.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1216.6	1219.1	6.7D	110.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1217.1	1219.1	4.0D	51.0			QL=5 ST=3 TYP=4
	4995	ATHN	4	S/F	1310.1	1328.1	58.9D	31.0			QL=5 ST=3 TYP=4
	8800	ATHN	4	S/F	1311.1	1322.6	57.0	35.0			QL=5 ST=3 TYP=4
	1415	ATHN	4	S/F	1313.6	1315.8	13.5D	110.0			QL=5 ST=3 TYP=4
	2695	SGMR	4	S/F	1521.0	1526.8	10.5D	44.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1521.0	1526.8	9.8D	41.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1521.0	1526.8	9.0D	64.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1526.6	1527.8	2.5	16.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1553.0E	1554.0	3.0D	750.0			QL=6 ST=2 TYP=5
	2695	SGMR	4	S/F	1619.8	1621.5	5.3D	31.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1620.0	1621.5	5.1D	18.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1621.1	1622.8	4.5	21.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1828.5	1831.6	10.3D	180.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1829.1	1831.5	5.5D	130.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1829.1	1831.6	7.7D	220.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1831.0	1831.8	2.1	30.0			QL=6 ST=2 TYP=3
	606	MANI	47	GB	2327.5	2327.6	3.8D	160.0			QL=6 ST=3 TYP=5
	4995	MANI	4	S/F	2327.5	2328.1	2.5D	31.0			QL=6 ST=3 TYP=3
	8800	MANI	8	S	2327.5	2328.1	1.5	30.0			QL=6 ST=3 TYP=3
	2695	MANI	4	S/F	2327.5	2328.3	2.5D	43.0			QL=6 ST=3 TYP=3
	1415	MANI	4	S/F	2327.5	2328.3	5.0D	49.0			QL=6 ST=3 TYP=3
11	606	LEAR	43	NS	0200.0	0316.3	507.0D	77.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0323.1	507.0D	96.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0810.6	507.0D	350.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1134.0	1253.8	586.0D	380.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1134.0	1442.8	586.0D	1700.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1657.0	0117.1	649.0D	320.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0515.1	0515.3	1.0D	240.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0515.1	0515.5	1.0D	7.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0515.1	0515.6	1.0D	8.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0515.3	0515.5	.7D	160.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0515.3	0515.6	.8	13.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0515.6	0515.6	.2D	8.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0601.8	0607.6	8.5D	21.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0602.3	0605.3	8.8D	31.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0602.3	0606.3	7.0D	24.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0602.8	0606.1	8.3D	74.0			QL=6 ST=2 TYP=4
	4995	LEAR	4	S/F	0603.3	0606.1	8.7D	55.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0603.6	0606.1	6.7	17.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0604.3	0606.3	9.0D	45.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0605.1	0606.6	8.0	8.0			QL=6 ST=2 TYP=4
	1415	LEAR	4	S/F	0843.6	0844.6	4.0D	45.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0844.0	0844.3	1.8	13.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0844.1	0844.3	2.9D	47.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0844.8	0845.3	1.2D	1600.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	0859.3	0900.6	5.7D	42.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
11	8800	ATHN	4	S/F	0859.5	0900.6	5.5	58.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1515.5E	1517.6	4.8D	1199.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1609.5	1612.1	5.5	11.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1609.8	1611.6	6.2D	21.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2200.6	2201.8	2.0	2000.0			QL=6 ST=2 TYP=5
12	410	LEAR	43	NS	0200.0	0252.3	508.0D	119.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	0200.0	0348.1	508.0D	22.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0553.8	508.0D	370.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1135.0	1441.8	584.0D	139.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1135.0	1721.8	584.0D	820.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1657.0	1721.6	649.0D	440.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1657.0	1911.5	649.0D	87.0			QL=6 ST=2 TYP=1
	4995	MANI	47	GB	0127.0	0128.3	7.0D	220.0			QL=6 ST=3 TYP=5
	8800	MANI	47	GB	0127.0	0128.6	5.0	460.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	0127.3	0128.1	6.3	8700.0			QL=6 ST=2 TYP=5
	606	MANI	47	GB	0127.3	0128.1	6.7D	160.0			QL=6 ST=3 TYP=5
	1415	MANI	47	GB	0127.3	0128.5	6.7D	330.0			QL=6 ST=3 TYP=5
	2695	MANI	47	GB	0127.3	0128.6	5.2D	240.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	0220.1	0220.1	1.4	580.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0220.1	0220.3	1.2	9.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0220.1	0220.3	1.0D	520.0			QL=6 ST=2 TYP=5
	606	PALE	4	S/F	1933.5	1940.1	15.1D	450.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1933.8	1944.3	22.3D	119.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1935.1	1940.0	14.9	320.0			QL=2 ST=3 TYP=3
	1415	PALE	4	S/F	1937.3	1944.6	11.3D	150.0			QL=6 ST=2 TYP=4
	2695	PALE	4	S/F	1938.5	1944.3	11.5D	110.0			QL=6 ST=2 TYP=4
	245	PALE	4	S/F	1938.5	1944.8	12.6	240.0			QL=6 ST=2 TYP=4
	4995	PALE	4	S/F	1938.5	1945.6	11.5D	39.0			QL=6 ST=2 TYP=4
	410	SGMR	4	S/F	1938.8	1942.6	8.8D	91.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1938.8	1945.0	12.8	440.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1939.1	1944.3	20.2D	45.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1939.6	1942.6	8.0D	130.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1940.1	1944.6	12.7D	19.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1943.5	1952.3	17.3D	13.0			QL=6 ST=2 TYP=3
13	410	SGMR	43	NS	1137.0	1242.8	581.0D	119.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1137.0	1310.5	581.0D	139.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0030.8	0034.1	4.3	2200.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0045.0	0048.1	8.0	530.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0200.0E	0201.5	2.0D	45.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0200.0	0201.6	2.3D	2200.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	0208.1	0209.5	4.0	620.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0209.1	0210.1	1.4D	25.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0209.3	0210.3	2.8	480.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0229.8	0237.6	15.3	18000.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0747.1	0749.1	4.2D	6200.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0748.0	0748.6	1.0	99.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	1008.0	1008.6	4.1	170.0			QL=5 ST=2 TYP=3
	245	LEAR	47	GB	1008.6	1008.6	3.0D	3200.0			QL=5 ST=2 TYP=5
	245	SGMR	47	GB	1254.0	1254.8	1.6	670.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1258.0	1258.3	.6	100.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1258.3	1258.5	.5D	1000.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1510.0	1517.0	8.0	32.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1510.1	1510.6	1.5D	700.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1822.1	1822.3	.7	700.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1822.3	1822.6	.8	1199.0			QL=6 ST=2 TYP=5
	410	PALE	4	S/F	1901.3	1901.3	2.7D	92.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1901.3	1901.5	2.7	119.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1902.1	1902.5	2.2	350.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1902.6	1902.6	1.5D	650.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	2036.8	2037.5	1.0	1100.0			QL=6 ST=2 TYP=5
	245	PALE	8	S	2037.0	2037.3	1.0	310.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	2106.0	2106.8	3.0	2500.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2106.5	2106.8	1.8	2000.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	2113.8	2114.0	.5D	119.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	2113.8	2114.0	.5	620.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	2125.8	2128.6	8.2	3300.0			QL=6 ST=3 TYP=5
14	410	LEAR	43	NS	0200.0	0426.6	509.0D	90.0			QL=6 ST=3 TYP=1

SOLAR RADIO EMISSION
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NOVEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
14	245	LEAR	43	NS	0200.0	0723.5	509.0D	220.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1656.0	2259.5	649.0D	340.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1656.0	2302.0	649.0D	200.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2000.0	0723.5	869.0D	220.0			QL=6 ST=3 TYP=1
	410	PALE	43	NS	2113.8	2113.8	392.2D	119.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	2113.8	2113.8	392.2D	440.0			QL=6 ST=2 TYP=1
	410	PALE	4	S/F	0123.1	0125.8	6.9D	190.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0123.5	0127.6	6.5	130.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0212.1	0212.8	2.0	1900.0			QL=6 ST=3 TYP=5
	410	LEAR	4	S/F	0232.3	0232.6	9.2D	370.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0232.3	0233.6	7.3D	220.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0232.3	0234.6	9.2D	18000.0			QL=6 ST=3 TYP=5
	1415	LEAR	4	S/F	0233.1	0234.6	3.5	11.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0506.8	0507.8	6.0	180.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0847.0	0847.3	3.1D	2500.0			QL=6 ST=3 TYP=5
	410	LEAR	8	S	0847.1	0847.1	1.9	25.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0942.3	0942.5	.7	630.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0945.1	0945.8	1.0	570.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	1111.3	1112.8	3.5	26.0			QL=5 ST=3 TYP=3
	4995	ATHN	4	S/F	1111.3	1113.0	3.5D	21.0			QL=5 ST=3 TYP=3
	2695	ATHN	8	S	1112.6	1112.8	1.5D	29.0			QL=5 ST=2 TYP=3
	1415	ATHN	8	S	1112.6	1112.8	1.5D	29.0			QL=5 ST=3 TYP=3
	1415	ATHN	4	S/F	1326.6	1331.1	10.0D	13.0			QL=5 ST=2 TYP=4
	4995	ATHN	4	S/F	1328.5	1331.6	8.8D	25.0			QL=5 ST=2 TYP=4
	8800	ATHN	4	S/F	1328.5	1332.3	8.0	30.0			QL=5 ST=2 TYP=4
	245	PALE	4	S/F	1859.3	1900.8	4.5	490.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1900.8	1901.0	.3	680.0			QL=6 ST=2 TYP=5
	606	PALE	4	S/F	2016.5	2024.6	26.0D	42.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2018.0	2024.3	24.5D	180.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2018.1	2024.3	24.4D	110.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2018.1	2024.6	24.4D	190.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2019.5	2024.1	23.0D	310.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2020.3	2024.1	22.2	96.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2022.5	2027.1	24.5D	250.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	2023.1	2024.8	23.9D	180.0			QL=6 ST=3 TYP=3
	8800	PALE	4	S/F	2023.1	2024.8	23.9D	210.0			QL=6 ST=3 TYP=3
	15400	PALE	4	S/F	2023.1	2024.8	23.9D	95.0			QL=6 ST=3 TYP=3
	2695	PALE	4	S/F	2023.1	2025.0	23.9D	99.0			QL=6 ST=3 TYP=3
	606	PALE	4	S/F	2023.1	2027.1	23.9D	270.0			QL=6 ST=3 TYP=3
	1415	PALE	4	S/F	2023.1	2033.6	23.9D	119.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	2023.3	2024.8	7.7D	150.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	2023.3	2027.3	7.7D	110.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	2023.5	2025.0	7.5D	180.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	2024.0	2027.5	4.8	210.0			QL=2 ST=2 TYP=3
	245	PALE	4	S/F	2025.0	2033.8	22.0	260.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	2025.3	2027.3	3.3	170.0			QL=6 ST=3 TYP=3
15	245	LEAR	43	NS	0200.0	0624.8	509.0D	62.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0753.3	509.0D	44.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1139.0	1231.3	577.0D	56.0			QL=6 ST=2 TYP=1
	8800	LEAR	8	S	0531.5	0532.3	1.3	23.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0531.5	0532.3	1.3D	10.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0531.6	0531.8	1.4D	25.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0531.8	0532.1	2.8D	45.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0532.0	0532.5	1.0D	50.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0532.3	0532.8	.8D	56.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0741.1	0741.3	2.5D	13.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0741.1	0742.3	5.5D	20.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0741.5	0742.3	5.3	40.0			QL=6 ST=2 TYP=4
	245	LEAR	47	GB	0811.8	0811.8	.3D	2300.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0811.8	0812.0	.3	320.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	1006.6	1007.1	1.4D	110.0			QL=5 ST=2 TYP=3
	15400	LEAR	4	S/F	1006.6	1007.1	2.4	119.0			QL=5 ST=2 TYP=3
	4995	LEAR	8	S	1006.8	1007.1	1.5D	76.0			QL=5 ST=2 TYP=3
	2695	LEAR	4	S/F	1007.1	1007.3	4.2D	150.0			QL=5 ST=2 TYP=3
	1415	LEAR	4	S/F	1007.1	1007.3	4.7D	110.0			QL=5 ST=2 TYP=3
	410	SGMR	4	S/F	1545.3	1547.3	2.7	300.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1547.0E	1547.5	.8D	380.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2021.5	2024.6	10.8D	180.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2021.6	2023.6	6.9D	24.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	245	SGMR	4	S/F	2021.6E	2024.5	5.9D	98.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2022.1	2024.5	5.7	86.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2022.3	2024.5	5.3D	150.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2022.5	2025.5	4.8	35.0			QL=2 ST=2 TYP=3
	245	PALE	4	S/F	2123.0	2147.5	46.0	60.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2132.1	2150.1	41.9D	110.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	2132.5	2152.5	39.5D	700.0			QL=6 ST=2 TYP=5
16	410	LEAR	43	NS	0200.0	0251.1	510.0D	6.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0434.8	510.0D	38.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1140.0	1454.0	575.0D	33.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1140.0	2023.6	575.0D	82.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0216.8	0221.8	9.8D	100.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0217.8	0222.5	8.2	25.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0701.1	0701.3	1.5	139.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0954.3	1002.6	13.8D	350.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0955.0	1004.6	17.0D	320.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	1000.1	1001.8	9.9	110.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1103.1	1104.6	4.2	19.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1103.1	1104.6	4.0D	17.0			QL=6 ST=2 TYP=4
	245	SGMR	8	S	1840.1	1841.0	1.9	220.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1856.1	1857.1	2.0D	9.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1856.3	1856.8	1.7D	36.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1856.3	1857.0	1.5	88.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1856.5	1857.1	3.0	9.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	1857.0	1857.1	1.1D	13.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	1857.0	1857.1	1.1D	35.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1857.0	1857.3	.3	180.0			QL=6 ST=2 TYP=3
17	410	LEAR	43	NS	0200.0	0902.1	510.0D	72.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0935.6	510.0D	170.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1657.0	1937.6	645.0D	53.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1657.0	2104.8	645.0D	430.0			QL=6 ST=2 TYP=1
	1415	MANI	8	S	0022.1	0023.1	1.9D	92.0			QL=6 ST=2 TYP=3
	2695	MANI	8	S	0023.0	0023.1	.8	10.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0221.3	0237.8	41.0D	34.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0221.6	0245.5	42.9D	31.0			QL=6 ST=2 TYP=4
	15400	LEAR	4	S/F	0221.8	0245.8	45.8	19.0			QL=6 ST=2 TYP=4
	1415	LEAR	4	S/F	0222.1	0231.0	28.9D	26.0			QL=6 ST=2 TYP=4
	4995	LEAR	4	S/F	0222.3	0242.6	43.2D	24.0			QL=6 ST=2 TYP=4
	410	LEAR	47	GB	0222.6	0238.6	24.4D	61.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0233.0	0240.6	20.3	1600.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	1207.3	1208.3	6.3D	8.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1208.6	1209.8	5.4	13.0			QL=5 ST=2 TYP=3
18	410	LEAR	43	NS	0200.0	0238.3	511.0D	200.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0614.3	511.0D	150.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1143.0	1356.5	570.0D	23.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1143.0	1956.1	570.0D	99.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1330.0	1321.6	463.0D	57.0			QL=6 ST=2 TYP=1
	4995	ATHN	4	S/F	1104.1	1105.6	12.9D	230.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1104.3	1105.6	12.8	380.0			QL=5 ST=2 TYP=3
	1415	ATHN	4	S/F	1104.5	1105.8	12.5D	33.0			QL=5 ST=2 TYP=3
	410	SGMR	4	S/F	1321.1	1321.6	3.2D	130.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1321.3	1321.6	3.2D	930.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1321.3	1321.6	3.0	61.0			QL=6 ST=2 TYP=3
19	410	LEAR	43	NS	0200.0	0704.1	512.0D	19.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0843.3	512.0D	50.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1144.0	2042.5	569.0D	54.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1144.0	2056.5	569.0D	29.0			QL=6 ST=2 TYP=1
	606	LEAR	4	S/F	0614.1	0615.6	3.5	86.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0614.6	0616.6	3.0D	72.0			QL=6 ST=3 TYP=3
	4995	ATHN	4	S/F	0820.1	0820.8	3.2	23.0			QL=5 ST=2 TYP=3
	606	SGMR	4	S/F	1146.0	1155.8	16.0	85.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1203.0	1228.8	76.8D	57.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1204.0	1228.6	76.5	52.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1217.1	1234.8	61.5D	60.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1226.1	1228.6	13.9D	41.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1226.1	1228.6	13.9D	45.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	2695	SGMR	4	S/F	1226.1	1232.3	13.9D	51.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1226.1	1235.0	11.9	82.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	1227.6	1228.3	5.4	31.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1227.6	1228.6	5.4D	48.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1227.6	1228.6	5.4D	11.0			QL=6 ST=2 TYP=3
20	410	SGMR	43	NS	1145.0	1707.8	567.0D	110.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1145.0	2017.8	567.0D	220.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1657.0	1947.3	645.0D	170.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1657.0	2036.1	645.0D	119.0			QL=6 ST=2 TYP=1
	4995	ATHN	4	S/F	0608.8	0609.3	3.5	86.0			QL=5 ST=2 TYP=3
	245	SGMR	47	GB	1319.6	1320.0	1.7D	690.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1319.8	1320.0	.8	34.0			QL=6 ST=2 TYP=3
21	410	LEAR	43	NS	0200.0	0252.0	513.0D	19.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0746.6	513.0D	78.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	2246.0	2310.8	296.0D	130.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0255.8	0256.3	1.2	150.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0648.5	0650.6	12.0D	47.0			QL=6 ST=3 TYP=3
	606	MANI	47	GB	0648.6	0650.1	12.2D	34.0			QL=6 ST=2 TYP=5
	1415	MANI	4	S/F	0649.1	0654.6	11.2D	10.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0649.3	0650.3	10.8D	38.0			QL=6 ST=3 TYP=3
	4995	MANI	4	S/F	0650.1	0654.6	9.0D	91.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0650.8	0654.5	9.5D	73.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0651.1	0653.0	6.5D	4.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0651.1	0654.8	9.5D	89.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0651.3	0655.0	6.5D	87.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0651.5	0655.0	6.3D	62.0			QL=6 ST=3 TYP=3
	4995	ATHN	4	S/F	0651.8	0655.1	10.7D	94.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0652.1	0656.6	8.7D	15.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	0652.6	0655.3	7.4	63.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0653.8	0654.6	4.3	84.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0654.1	0655.1	2.7	25.0			QL=6 ST=3 TYP=3
22	245	LEAR	43	NS	0200.0	0604.1	514.0D	110.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0200.0	0748.3	514.0D	13.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1148.0	1204.5	562.0D	190.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	2123.0	2203.6	377.0D	170.0			QL=6 ST=2 TYP=1
	1415	MANI	8	S	0732.3	0732.3	.3	53.0			QL=6 ST=2 TYP=3
	606	MANI	47	GB	0733.3	0733.6	1.0D	42.0			QL=6 ST=2 TYP=5
23	245	LEAR	43	NS	0200.0	0917.3	515.0D	20.0			QL=6 ST=2 TYP=1
	4995	ATHN	4	S/F	1209.5	1211.6	8.5D	76.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1210.8	1211.3	7.2	130.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1210.8	1212.0	7.0D	49.0			QL=6 ST=2 TYP=3
24	245	LEAR	43	NS	0200.0	0509.5	516.0D	61.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1530.0	1657.8	339.0D	520.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1659.0	1722.0	641.0D	620.0			QL=6 ST=2 TYP=1
	1415	LEAR	4	S/F	0258.3	0301.1	6.8D	48.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0258.3	0302.1	9.2D	16.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0258.5	0259.5	3.8D	31.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0258.8	0259.6	8.0D	61.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	0258.8	0259.8	2.0	480.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0259.1	0259.8	4.7D	350.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0259.3	0300.3	6.8	31.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0300.5	0301.1	1.5D	49.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0716.1	0716.8	3.0	53.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0809.8	0810.0	1432.3	119.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1750.3	1752.1	2.5	730.0			QL=6 ST=2 TYP=5
25	245	LEAR	43	NS	0200.0	0853.5	516.0D	46.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1151.0	1537.3	558.0D	34.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0527.6	0541.1	29.5	6.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0527.6	0543.3	31.4D	87.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	1004.6	1006.8	6.5	44.0			QL=6 ST=2 TYP=3
26	245	LEAR	43	NS	0454.0	0844.8	342.0D	9.0			QL=6 ST=3 TYP=1
	100	LEAR	8	S	0844.8	1036.0					QL=6 ST=2 TYP=3
28	245	LEAR	43	NS	0200.0	0751.1	518.0D	13.0			QL=6 ST=2 TYP=1
29	245	LEAR	43	NS	0200.0	0519.5	519.0D	58.0			QL=6 ST=2 TYP=1
30	245	LEAR	43	NS	0200.0	0628.5	520.0D	19.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1157.0	1808.3	549.0D	160.0			QL=6 ST=2 TYP=1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
01	245	LEAR	43	NS	0200.0	0402.3	520.0D	25.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1152.0	1237.5	554.0D	99.0			QL=6 ST=3 TYP=1
	245	LEAR	4	S/F	0443.8	0444.3	2.3	280.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1408.0	1408.3	1.0D	139.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1408.0	1408.3	1.0	63.0			QL=6 ST=2 TYP=3
02	245	LEAR	43	NS	0200.0	0950.1	520.0D	25.0			QL=6 ST=2 TYP=1
03	245	LEAR	43	NS	0200.0	0707.1	517.0D	41.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1302.3	1445.6	482.7D	130.0			QL=6 ST=2 TYP=1
	1415	SGMR	47	GB	1459.5	1504.6	26.5D	590.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1500.1	1512.8	19.9D	32.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1500.8	1512.8	19.2D	52.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1503.0	1512.8	17.0	28.0			QL=6 ST=2 TYP=3
04	245	LEAR	43	NS	0200.0	0435.1	517.0D	26.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1201.0	1502.5	544.0D	200.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1702.0	1849.1	637.0D	380.0			QL=6 ST=3 TYP=1
	8800	MANI	47	GB	0222.1	0224.6	6.9	780.0			QL=6 ST=2 TYP=5
	4995	PALE	4	S/F	0223.0	0224.5	6.0D	170.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	0223.0	0224.5	5.0D	590.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	0223.0	0224.8	3.0	50.0			QL=6 ST=2 TYP=3
	15400	LEAR	47	GB	0223.5	0224.6	3.8	510.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0829.0	0835.1	20.5	76.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1321.3	1323.1	3.7D	21.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1321.6	1324.3	7.5	6.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1321.8	1323.1	3.2D	11.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1322.3	1324.5	7.7	9.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1322.8	1323.1	2.5D	17.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1409.5	1409.8	1.3D	970.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1409.6	1409.8	.9	43.0			QL=6 ST=2 TYP=3
05	410	LEAR	43	NS	0500.0	0511.6	339.0D	8.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0500.0	0548.3	339.0D	119.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1425.0	1719.3	400.0D	190.0			QL=6 ST=2 TYP=1
06	245	LEAR	43	NS	0200.0	0732.6	519.0D	32.0			QL=3 ST=2 TYP=1
	245	SGMR	43	NS	1204.0	1443.6	541.0D	360.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0320.1	0320.3	.7D	19.0			QL=3 ST=2 TYP=3
	410	LEAR	8	S	0320.1	0320.3	.5D	8.0			QL=3 ST=2 TYP=3
	606	LEAR	8	S	0322.6	0322.8	.7	21.0			QL=3 ST=2 TYP=3
	245	LEAR	8	S	0723.1	0723.6	1.5	170.0			QL=3 ST=3 TYP=3
	410	LEAR	8	S	0723.1	0723.8	1.2D	42.0			QL=3 ST=3 TYP=3
07	245	SGMR	43	NS	1204.0	1247.3	541.0D	65.0			QL=6 ST=3 TYP=1
	4995	MANI	8	S	0152.1	0152.8	.7D	4.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	0152.3	0152.8	1.7D	25.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0152.3	0153.1	2.5D	15.0			QL=6 ST=2 TYP=4
08	410	LEAR	43	NS	0200.0	0903.8	520.0D	60.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	1004.3	520.0D	59.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1105.0	1319.3		130.0			QL=6 ST=3 TYP=1
	245	PALE	47	GB	1920.1	1923.1	6.9	2300.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1920.1	1923.8	7.4	2600.0			QL=6 ST=2 TYP=5
09	410	LEAR	43	NS	0200.0	0617.0	520.0D	54.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0804.3	520.0D	100.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1206.0						QL=6 ST=3 TYP=1
	245	PALE	43	NS	1704.0	0109.1	634.0D	300.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1704.0	2208.1	634.0D	139.0			QL=6 ST=2 TYP=1
	410	LEAR	47	GB	0351.6	0353.5	6.9D	139.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0353.1	0353.5	4.5	38.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1255.5	1256.1	1.6	1300.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1345.0	1347.0	4.0	110.0			QL=6 ST=2 TYP=3
10	410	SGMR	43	NS	1207.0	1750.6	537.0D	50.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1207.0	1927.3	537.0D	350.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1704.0	2105.8	634.0D	440.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0632.0	0633.0	14.1D	119.0			QL=6 ST=3 TYP=5
	410	LEAR	47	GB	0632.1	0632.6	14.5	19.0			QL=6 ST=3 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	410	LEAR	43	NS	0200.0	0257.1	522.0D	110.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0200.0	0759.8	522.0D	119.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2151.0	0548.1	772.0D	100.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2151.0	0830.1	772.0D	71.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0331.8	0333.6	4.0D	99.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0332.8	0333.5	2.3D	210.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0333.1	0333.8	1.5	44.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0333.3	0334.1	1.0D	24.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0333.3	0334.3	1.5D	22.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0333.5	0334.1	1.3D	13.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1354.3	1357.1	12.0	85.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1354.6	1359.6	9.7D	1700.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1354.6	1400.6	9.4	350.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1643.3	1643.8	2.2	1600.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	1913.6	1914.6	2.2	84.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1913.8	1914.8	1.7D	70.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1913.8	1916.3	4.2D	100.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	1914.3	1917.0	3.7D	500.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1915.1	1916.6	2.7D	139.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1915.5	1917.0	2.0	340.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	2314.6	2314.8	.5	6.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2314.8	2315.0	1.0D	45.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2314.8	2315.1	1.0D	26.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2324.6	2325.6	1.5	13.0			QL=6 ST=2 TYP=3
12	245	SGMR	43	NS	1209.0	1242.8	536.0D	90.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2151.0	0029.3	772.0D	250.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2151.0	2234.0	772.0D	15.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0228.1	0228.6	.7D	6.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0228.3	0228.5	.3	9.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0228.3	0228.6	1.0D	13.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0228.3	0228.6	1.3D	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0409.8	0410.5	1.3	6.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0409.8	0410.5	1.3D	310.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	1002.8	1003.1	1.0	25.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1706.6	1716.8	14.4	3100.0			QL=6 ST=2 TYP=5
	4995	PALE	49	GB	1714.1	1714.5		740.0			QL=5 ST=3 TYP=7
	8800	PALE	49	GB	1714.1	1714.5		3200.0			QL=5 ST=3 TYP=7
	2695	PALE	49	GB	1714.1	1714.5		330.0			QL=5 ST=3 TYP=7
	15400	PALE	49	GB	1714.1	1714.5		700.0			QL=5 ST=3 TYP=7
	606	PALE	49	GB	1714.1	1714.8		720.0			QL=5 ST=3 TYP=7
	410	PALE	49	GB	1714.3	1714.8		370.0			QL=5 ST=3 TYP=7
	1415	PALE	49	GB	1714.3	1714.8		180.0			QL=5 ST=3 TYP=7
	245	PALE	49	GB	1714.6	1716.1		3300.0			QL=5 ST=3 TYP=7
13	245	SGMR	43	NS	1210.0	1756.1	535.0D	92.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2152.0	0225.1	772.0D	220.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2152.0	1018.3	772.0D	119.0			QL=6 ST=2 TYP=1
	4995	LEAR	8	S	0859.8	0900.6	1.8D	64.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	0859.8	0900.6	2.3	119.0			QL=6 ST=2 TYP=3
	1415	ATHN	8	S	0859.8	0900.6	2.0D	3.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0859.8	0900.6	1.7D	119.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0859.8	0900.8	1.8D	24.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0859.8	0900.8	2.0D	9.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0900.0	0900.5	1.3D	5.0			QL=6 ST=3 TYP=3
	4995	ATHN	4	S/F	0900.0	0900.6	2.1D	78.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0900.0	0901.3	3.8D	150.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0900.1	0900.6	1.7	80.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0900.3	0900.8	1.0D	110.0			QL=6 ST=3 TP=3
	606	LEAR	8	S	0919.3	0920.6	1.5	52.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0936.1	0937.1	3.7	240.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1350.1	1351.1	3.5	17000.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1802.5	1806.0	5.6	139.0			QL=6 ST=2 TYP=3
14	245	SGMR	43	NS	1211.0	1842.1	534.0D	1800.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1211.0	1857.1	534.0D	170.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2152.0	0509.3	772.0D	139.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	2152.0	0512.8	772.0D	29.0			QL=6 ST=3 TYP=1
	410	LEAR	4	S/F	0251.1	0251.6	2.9D	7.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0251.1	0251.6	2.7	780.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
14	2695	LEAR	4	S/F	0251.1	0252.1	3.0D	6.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0251.1	0252.8	3.0D	18.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0251.3	0251.6	1.8D	590.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0251.3	0252.0	2.8D	6.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0251.8	0252.5	2.7	2.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0307.1	0309.1	4.5D	15.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0307.3	0308.1	1.7	100.0			QL=6 ST=2 TYP=3
	1415	MANI	8	S	0307.5	0308.3	1.6	99.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0348.3	0348.6	.7	119.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	0406.1	0407.3	5.9	100.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0415.0E	0415.0	8.0D	340.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0611.1	0613.3	3.7D	110.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0611.5	0613.5	4.5	200.0			QL=6 ST=3 TYP=3
	1415	ATHN	4	S/F	0611.5	0613.6	4.6D	28.0			QL=6 ST=3 TYP=3
	2695	ATHN	4	S/F	0611.5	0613.6	4.6D	28.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0612.0	0617.0	6.3D	250.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	0612.1	0613.1	3.9D	150.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0612.1	0613.6	4.0D	27.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0612.3	0613.8	5.7D	90.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0612.5	0613.3	3.1D	210.0			QL=6 ST=2 TYP=3
	4995	MANI	47	GB	0612.6	0613.6	3.2D	250.0			QL=6 ST=2 TYP=5
	15400	LEAR	8	S	0612.8	0613.3	1.8	65.0			QL=6 ST=2 TYP=3
	8800	MANI	8	S	0612.8	0613.6	1.8	150.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0722.8	0723.8	2.5	88.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0723.0	0723.5	1.1D	67.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0813.3	0814.5	2.5D	610.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0813.3	0814.5	2.5	77.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0813.3	0814.5	5.8	7.0			QL=6 ST=2 TYP=4
	606	MANI	47	GB	0813.8	0814.5	1.3	25.0			QL=6 ST=2 TYP=5
	606	LEAR	47	GB	0838.6	0840.3	3.5	100.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0912.5	0914.0	2.0D	47.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0913.3	0914.0	1.3	84.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0939.3	0940.6	3.0D	55.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0940.8	0941.5	1.5	150.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1255.6	1259.8	12.4	37.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1256.0	1300.6	13.1D	37.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1259.5	1300.8	9.6D	15.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	1300.5	1300.8	1.0	280.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1454.0	1454.5	10.1D	95.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1454.6	1454.8	2.9	95.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1527.5	1533.6	9.8D	280.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1531.3	1533.8	4.8D	34.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1531.8	1532.5	3.2	150.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1532.3	1533.8	2.7D	21.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1532.5	1533.6	4.6D	48.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1532.6	1534.0	2.9D	119.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1533.3	1533.8	2.7D	13.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1653.0	1653.6	7.3D	83.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1653.0	1658.1	5.1D	130.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1653.0	1658.1	7.3D	52.0			QL=6 ST=2 TYP=5
15	245	SGMR	43	NS	1211.0	1546.3	534.0	270.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2152.0	0527.5	773.0D	20.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2152.0	0822.1	773.0D	49.0			QL=6 ST=2 TYP=1
	245	PALE	8	S	2135.3	2136.1	1.8	430.0			QL=6 ST=2 TYP=3
16	410	SGMR	43	NS	1212.0	1246.8	533.0D	130.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1212.0	1424.1	533.0D	630.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2153.0	0515.8	772.0D	630.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2153.0	0644.3	772.0D	390.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0057.6	0057.6	7730.0D	24.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0057.8	0058.6	.8	23.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0238.0	0239.5	2.6	46.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0238.3	0239.6	2.8D	21.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0651.3	0651.6	3.7D	170.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0651.3	0652.1	2.7D	42.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0651.3	0652.3	3.8D	59.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0651.5	0652.0	6.8D	66.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0651.5	0652.1	1.8D	61.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0651.5	0652.1	2.1	52.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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DECEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	1415	ATHN	4	S/F	0651.5	0652.3	3.8D	49.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0651.6	0652.1	1.7	25.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0651.6	0652.1	5.2D	51.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0652.1	0653.1	7.0D	43.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0652.1	0653.1	6.0D	72.0			QL=6 ST=2 TYP=4
	1415	MANI	47	GB	0652.8	0654.8	5.3D	26.0			QL=6 ST=2 TYP=5
	8800	MANI	4	S/F	0653.0	0653.1	2.1	55.0			QL=6 ST=2 TYP=4
	245	LEAR	8	S	0734.0	0735.1	1.6	410.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0825.6	0826.3	1.4D	24.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0826.0	0826.1	1.0D	13.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0826.0	0826.5	1.0	170.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	2357.8	2358.1	1.0	76.0			QL=6 ST=2 TYP=3
17	410	PALE	43	NS	0013.0	0024.3	205.0D	260.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	0013.0	0024.3	205.0D	220.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1213.0	1331.8	272.0D	110.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1213.0	1353.8	272.0D	2000.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1707.0	0152.1	631.0D	530.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1707.0	1850.1	631.0D	60.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2154.0	0057.3	772.0D	330.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2154.0	2343.1	772.0D	93.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0116.6	0118.3	4.2	65.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0156.1	0157.3	2.0	160.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0156.3	0157.0	1.7D	11.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	1746.0	1746.5	1.1	730.0			QL=6 ST=2 TYP=5
18	245	SGMR	43	NS	1213.0	1545.1	533.0D	600.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1213.0	1845.0	533.0D	36.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2154.0	0140.1	772.0D	27.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2154.0	0146.8	772.0D	130.0			QL=6 ST=2 TYP=1
	606	LEAR	4	S/F	0541.6	0543.5	2.2D	9.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0541.6	0543.6	2.2	8.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0543.1	0544.0	3.0D	260.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0543.1	0544.0	2.9D	240.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1902.3	1903.1	7.5D	119.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1902.3	1903.5	11.2D	260.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1902.3	1903.5	11.2D	110.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1902.3E	1904.8	16.8D	11000.0			QL=6 ST=2 TYP=5
	1415	PALE	4	S/F	1902.3	1907.1	15.7D	88.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1902.3	1907.3	14.7	340.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1902.5	1907.3	15.1D	82.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1902.6	1903.6	6.0D	300.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1902.8	1907.1	14.0D	370.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1902.8	1907.3	14.3D	190.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1903.0	1903.6	11.3	230.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1903.1	1904.8	14.9D	13000.0			QL=6 ST=2 TYP=5
19	410	SGMR	43	NS	1214.0	1325.1	532.0D	46.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1214.0	1507.8	532.0D	430.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2155.0	0031.3	772.0D	100.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	2155.0	1026.3	772.0	63.0			QL=6 ST=3 TYP=1
	245	LEAR	47	GB	0950.8	0951.0	3.0D	720.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0950.8	0951.0	1.0D	36.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0951.1	0951.1	.2	63.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1847.3	1854.8	12.8D	10.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1852.3	1855.3	5.2D	21.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1853.0	1855.3	4.0D	20.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1853.6	1854.0	5.4D	23.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1854.0	1859.6	8.0D	54.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	1854.6	1855.3	2.4	34.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2103.1	2103.6	.7	3100.0			QL=6 ST=2 TYP=5
	410	LEAR	49	GB	2200.1	2205.1	39.5D	1399.0			QL=4 ST=3 TYP=7
	245	LEAR	49	GB	2200.3	2215.3	38.0D	8700.0			QL=4 ST=3 TYP=7
	2695	LEAR	49	GB	2201.8	2212.8	17.3D	560.0			QL=4 ST=3 TYP=7
	4995	LEAR	49	GB	2202.8	2212.8	16.3D	730.0			QL=4 ST=3 TYP=7
	606	LEAR	49	GB	2202.8E	2215.1	36.8D	1900.0			QL=4 ST=3 TYP=7
	8800	LEAR	49	GB	2203.1	2214.0	17.7D	1399.0			QL=4 ST=3 TYP=7
	1415	LEAR	49	GB	2203.5	2212.8	26.6D	630.0			QL=4 ST=3 TYP=7
	1415	PALE	49	GB	2204.3	2213.3	34.5D	780.0			QL=1 ST=3 TYP=7
	4995	PALE	49	GB	2204.6	2212.8	19.2D	430.0			QL=1 ST=3 TYP=7

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
19	8800	PALE	49	GB	2204.8	2212.3	21.8D	1300.0			QL=1 ST=3 TYP=7
	2695	PALE	49	GB	2205.1	2212.8	23.5D	630.0			QL=1 ST=3 TYP=7
	606	PALE	49	GB	2205.3	2215.0	32.3D	2900.0			QL=1 ST=3 TYP=7
	15400	PALE	49	GB	2205.6	2213.5	22.0D	1900.0			QL=1 ST=3 TYP=7
	245	PALE	49	GB	2206.3	2215.3	25.0	10000.0			QL=1 ST=3 TYP=7
	15400	LEAR	49	GB	2211.1	2213.6	14.9	1399.0			QL=4 ST=3 TYP=7
20	245	SGMR	43	NS	1215.0	1529.8	532.0D	1199.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1215.0	1805.1	532.0D	250.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1708.0	2014.6	630.0D	110.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1708.0	2206.1	630.0D	220.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2155.0	0228.6	772.0D	119.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2155.0	2349.8	772.0D	17.0			QL=6 ST=2 TYP=1
	606	MANI	4	S/F	0012.8	0013.8	3.0D	34.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0012.8	0014.1	4.3D	26.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0012.8	0014.1	4.0D	20.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0012.8	0014.5	3.5	13.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0013.0	0013.8	4.0D	47.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0021.5	0023.8	483.8D	31.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0022.0	0022.1	3.1D	670.0			QL=6 ST=3 TYP=5
	410	LEAR	4	S/F	0022.0	0023.6	3.0D	150.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0022.0	0024.0	3.6D	30.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0022.1	0024.0	4.5D	44.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0022.1	0024.0	3.5D	41.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0022.5	0023.6	3.1D	31.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0022.8	0024.1	2.8	23.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	0025.3	0026.3	2.2	560.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0614.1	0616.8	6.7	760.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	0615.3	0617.8	6.5D	380.0			QL=5 ST=3 TYP=3
	8800	ATHN	47	GB	0615.3	0617.8	6.5	880.0			QL=5 ST=3 TYP=5
	1415	ATHN	4	S/F	0615.3	0617.8	6.8D	260.0			QL=5 ST=3 TYP=3
	410	LEAR	4	S/F	0637.3	0640.0	6.5D	65.0			QL=6 ST=2 TY=3
	606	LEAR	4	S/F	0638.5	0640.1	5.1	320.0			QL=6 ST=2 TYP=3
	606	MANI	8	S	0639.6	0640.1	.9	180.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0924.3	0927.0	5.3	180.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0925.5	0927.1	5.1D	86.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0925.8	0926.6	4.0D	150.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0926.1	0926.6	1.7	130.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0926.1	0927.3	4.0D	50.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1350.1	1350.8	1.0	3900.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	1504.1	1508.6	6.0D	23.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1504.5	1508.6	7.5D	13.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1504.6	1506.1	4.0D	8.0			QL=6 ST=3 TYP=3
	410	SGMR	8	S	1509.8	1510.1	2.0D	110.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1509.8	1510.1	2.0	139.0			QL=6 ST=3 TYP=3
	410	PALE	4	S/F	2026.1	2027.1	4.0D	320.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2026.3	2027.1	3.0	320.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2026.8	2027.3	2.0	320.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2027.0	2027.3	2.0D	160.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2027.1	2028.8	1.9D	36.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2205.8	2206.0	.3D	180.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2205.8	2206.1	.5	72.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2225.0	2225.6	1.1	26.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2225.1	2225.6	1.0D	850.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2225.1	2225.8	1.7	1300.0			QL=6 ST=2 TYP=5
21	410	SGMR	43	NS	1215.0	1410.5	532.0D	57.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1215.0	1937.3	532.0D	190.0			QL=6 ST=2 TYP=1
	245	PALE	44	NS	1900.0E	2117.1	495.0D	190.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0510.3	0510.6	.7	139.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0521.8	0524.3	3.5	22.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0522.3	0522.5	2.0D	56.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1532.1	1532.3	2.5D	25.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1532.3	1532.5	1.5D	110.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1532.3	1533.0	1.5	180.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1532.3	1533.0	2.2D	45.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1900.0	1900.6	1.3	130.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1900.3	1900.6	.5D	21.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1900.5	1900.6	.5D	9.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2002.1	2003.1	2.7	480.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
21	245	SGMR	47	GB	2002.8	2003.6	3.2D	730.0			QL=6 ST=3 TYP=5
	1415	SGMR	4	S/F	2003.6	2003.8	2.9D	11.0			QL=6 ST=3 TYP=3
	606	SGMR	8	S	2003.6	2003.8	.7D	41.0			QL=6 ST=3 TYP=3
	410	SGMR	8	S	2003.6	2004.0	.9D	100.0			QL=6 ST=3 TYP=3
	2695	SGMR	8	S	2003.8	2003.8	.3	18.0			QL=6 ST=3 TYP=3
22	245	LEAR	43	NS	2156.0	2239.6	772.0D	210.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	2156.0	2344.3	772.0D	11.0			QL=6 ST=3 TYP=1
	245	LEAR	8	S	2304.1	2304.6	1.5	21.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	2356.8		3.8	119.0			QL=6 ST=3 TYP=3
23	245	LEAR	43	NS	2157.0	0136.3	772.0D	85.0			QL=6 ST=3 TYP=1
	410	LEAR	4	S/F	0217.6	0219.3	2.5	4.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0224.0	0224.5	.8	16.0			QL=6 ST=2 TYP=3
24	410	LEAR	43	NS	0032.0	0129.3	617.0D	15.0			QL=6 ST=3 TYP=1
25	245	LEAR	43	NS	0011.5	0044.8	637.5	7.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2158.0	0228.3	772.0D	17.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2158.0	0552.1	772.0D	1.0			QL=6 ST=2 TYP=1
	2695	LEAR	47	GB	0656.5	0713.0	30.3D	160.0			QL=6 ST=3 TYP=5
	8800	LEAR	47	GB	0657.0	0704.3	29.0D	190.0			QL=6 ST=3 TYP=5
	2695	MANI	47	GB	0657.0	0713.6	31.0D	139.0			QL=6 ST=3 TYP=5
	4995	LEAR	47	GB	0657.1	0711.6	29.5D	180.0			QL=6 ST=3 TYP=5
	4995	MANI	47	GB	0657.6	0712.3	30.2D	160.0			QL=6 ST=3 TYP=5
	8800	MANI	47	GB	0657.6	0712.3	30.2	110.0			QL=6 ST=3 TYP=5
	1415	MANI	47	GB	0658.0	0712.3	31.0D	46.0			QL=6 ST=3 TYP=5
	1415	LEAR	47	GB	0658.1	0711.8	29.7D	62.0			QL=6 ST=3 TYP=5
	15400	LEAR	47	GB	0659.1	0704.5	16.5	77.0			QL=6 ST=3 TYP=5
	606	MANI	47	GB	0659.6	0712.8	27.7D	95.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0700.3	0722.5	45.0D	130.0			QL=6 ST=3 TYP=5
	410	LEAR	47	GB	0700.6	0722.1	44.5D	230.0			QL=6 ST=3 TYP=5
	606	LEAR	47	GB	0701.6	0712.1	30.5D	89.0			QL=6 ST=3 TYP=5
26	606	LEAR	8	S	0045.1	0050.6	5.5D	6.0			QL=1 ST=2 TYP=4
	410	LEAR	4	S/F	0045.6	0053.6	17.0D	13.0			QL=1 ST=2 TYP=3
	245	LEAR	4	S/F	0046.1	0048.5	15.9D	22.0			QL=1 ST=2 TYP=3
27	245	LEAR	43	NS	2159.0	0057.1	772.0D	13.0			QL=6 ST=2 TYP=1
28	606	LEAR	8	S	0312.1	0312.1	.4	200.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1505.0	1505.1	2.8	67.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2136.1	2137.8	8.7D	89.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2136.5	2137.1	8.0	139.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2136.8	2138.3	5.3D	13.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2137.1	2138.5	5.4D	17.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2137.3	2138.1	6.3D	24.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2137.3	2138.6	5.0D	49.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2137.3	2138.6	5.5D	88.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2137.3	2138.6	5.5D	119.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2302.5	2303.1	.8	56.0			QL=6 ST=2 TYP=3
29	410	LEAR	47	GB	0042.1	0043.1	2.0D	820.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0042.1	0043.3	7.7D	1300.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	0042.5	0043.1	8.6	190.0			QL=6 ST=2 TYP=3
	606	MANI	8	S	0042.6	0043.0	.7	520.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0042.8	0043.1	1.2	150.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0208.6	0208.8	3.5D	37.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0208.6	0209.8	3.2D	210.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0208.8	0209.0	2.0	33.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0208.8	0209.0	3.0D	100.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0208.8	0209.1	2.7D	180.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0208.8	0209.1	2.0D	22.0			QL=6 ST=2 TYP=3
	8800	MANI	8	S	0209.5	0210.0	1.5	27.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0209.6	0209.6	5.5D	170.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0209.6	0209.8	2.7D	79.0			QL=6 ST=2 TYP=3
	606	MANI	47	GB	0209.6	0209.8	.4D	28.0			QL=6 ST=2 TYP=5
	4995	MANI	8	S	0209.6	0210.1	1.2D	20.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0212.1	0213.1	2.2D	440.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0212.5	0214.1	3.1	590.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

DECEMBER 1979

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	4995	LEAR	4	S/F	0455.6	0501.1	10.5D	51.0			QL=6 ST=3 TYP=3
	4995	MANI	4	S/F	0456.0	0501.1	9.0D	54.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0456.0	0501.1	7.0	77.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0457.8	0501.1	7.8D	59.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0458.3	0501.1	7.5D	28.0			QL=6 ST=3 TYP=3
	2695	MANI	4	S/F	0458.8	0501.1	6.2D	31.0			QL=6 ST=2 TYP=4
	1415	LEAR	4	S/F	0458.8	0501.1	5.0D	4.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0459.1	0501.1	5.7	23.0			QL=6 ST=3 TYP=3
	4995	ATHN	4	S/F	0706.8	0708.6	6.0D	15.0			QL=6 ST=2 TYP=4
	8800	ATHN	8	S	0707.1	0707.6	1.0	19.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	0707.8	0709.0	2.2D	9.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1829.5	1832.8	5.1D	43.0			QL=6 ST=3 TYP=3
	606	PALE	4	S/F	1830.1	1831.6	4.9D	44.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1830.3	1830.8	5.7D	400.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1830.5	1831.0	5.6	170.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1830.5	1832.3	3.1D	9.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1830.6	1831.0	2.2D	410.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1830.6	1832.1	2.7D	11.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1830.6	1832.5	3.0	18.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1830.8	1831.1	1.0D	130.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1830.8	1832.6	3.3D	9.0			QL=6 ST=3 TYP=3
30	245	LEAR	43	NS	0554.6	0656.1	297.4D	98.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0420.0E	0420.6	.8D	110.0			QL=5 ST=3 TYP=3
	245	LEAR	8	S	0530.1	0530.3	.7	79.0			QL=6 ST=2 TYP=3
31	245	LEAR	44	NS	0449.0E	0728.1	221.0D	42.0			QL=6 ST=2 TYP=1
	410	LEAR	44	NS	0449.0E	0728.1	221.0D	42.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0320.5	0321.0	1.0	13.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JANUARY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	245	LEAR	44	NS	0455.0E	0511.5	358.0D	28.0			QL=6 ST=2 TYP=1
	245	LEAR	44	NS	2201.0E	2337.8	313.1D	7.0			QL=6 ST=2 TYP=1
02	245	LEAR	43	NS	2300.1	0147.5	401.9D	23.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2311.0	0153.1	391.0	13.0			QL=6 ST=2 TYP=1
	1415	LEAR	4	S/F	0125.8	0129.0	4.3D	75.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0126.1	0127.6	6.0D	19.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0126.5	0128.1	5.5D	41.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0126.6E	0128.8	5.7D	11.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0127.0	0128.1	4.0D	50.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0127.0	0128.8	2.8	97.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0127.0	0129.0	3.1D	200.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0127.0	0129.0	4.0D	170.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0127.6	0128.6	2.5D	17.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0129.0	0129.6	.8D	45.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0320.0	0320.1	.6	31.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0431.8	0431.8	.5D	9.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0431.8	0432.1	.5	5.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0519.6	0520.1	1.0D	290.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0519.8	0520.3	.8	150.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1440.8	1441.5	1.3	170.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1441.1	1441.5	.5D	11.0			QL=6 ST=2 TYP=3
03	245	SGMR	43	NS	1527.8	1654.1	348.2D	79.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2203.0	0917.1	770.0D	63.0			QL=6 ST=2 TYP=1
	245	SGMR	47	GB	1513.5	1513.6	.3	880.0			QL=6 ST=2 TYP=5
04	410	LEAR	43	NS	0829.0	0939.5	144.0D	13.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1532.0	1822.0	345.0D	74.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1826.0	1841.6	171.0D	15.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1830.1	1832.8	166.9D	21.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2103.0	0508.0	830.0D	17.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2203.0	0508.0	770.0D	17.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	2203.0	2349.3	770.0D	18.0			QL=6 ST=3 TYP=1
	8800	LEAR	4	S/F	0522.5	0523.1	4.3D	110.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0522.6	0523.3	4.5D	18.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0523.0	0523.3	4.5	91.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1429.6	1429.8	.5	420.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1517.5	1517.8	2.6	3600.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1546.0	1546.1	.3	2100.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1600.6	1603.6	3.7	450.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1601.3	1613.8	12.5D	119.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1713.1	1716.8	10.4	110.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1842.1	1843.0	1.7	700.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	2116.6	2116.8	.9	61.0			QL=6 ST=2 TYP=5
05	410	LEAR	43	NS	2203.0	0250.1	770.0D	11.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2203.0	2309.6	770.0D	84.0			QL=6 ST=3 TYP=1
	410	LEAR	4	S/F	0204.1	0204.8	3.7	37.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0248.8	0251.0	2.8D	280.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0249.6	0250.6	2.9	34.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0639.6	0639.8	.9	139.0			QL=6 ST=2 TYP=3
06	245	SGMR	43	NS	1219.0	1354.8	540.0D	420.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2204.0	0727.1	770.0D	94.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0608.0	0608.5	2.6D	130.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0608.3	0609.1	2.5D	119.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0608.3	0609.8	3.0	22.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0617.8	0618.6	1.3D	92.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0618.1	0618.1	.2	5.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	1008.3	1008.6	5.5D	110.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	1008.3	1009.1	4.0D	34.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	1008.8	1009.0	3.0	28.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1510.1	1510.5	1.4	880.0			QL=6 ST=2 TYP=5
07	410	LEAR	8	S	0226.3	0227.1	1.5D	16.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0229.1	0231.1	5.7D	7.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0229.1	0231.1	6.0	8.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0229.8	0230.1	4.8D	11.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0648.1	0656.6	15.9	20.0			QL=5 ST=2 TYP=4

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JANUARY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
07	1415	ATHN	4	S/F	0650.3	0657.0	17.8D	44.0			QL=5 ST=2 TYP=4
	15400	SGMR	4	S/F	1309.3	1312.8	8.0	110.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1312.0	1313.8	5.3D	32.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1312.0E	1313.8	6.1D	150.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	1312.0	1313.8	5.8D	53.0			QL=5 ST=2 TYP=3
	8800	SGMR	4	S/F	1312.1	1313.8	3.0D	93.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1313.0	1313.6	2.1D	38.0			QL=6 ST=2 TYP=3
08	245	LEAR	43	NS	0440.0	0718.5	374.0D	38.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0440.0	0856.6	374.0D	22.0			QL=6 ST=2 TYP=1
	4995	LEAR	4	S/F	0412.1	0414.0	5116.7D	92.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0412.3	0413.0	1.5D	119.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	0412.3	0413.0	1.5	130.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0412.3	0413.1	1.7D	34.0			QL=6 ST=3 TYP=3
	4995	ATHN	47	GB	1006.1	1010.6	52.9	200.0			QL=6 ST=3 TYP=5
	1415	ATHN	47	GB	1006.6	1014.0	54.2D	95.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	1016.6	1023.5	20.5	34.0			QL=6 ST=2 TYP=3
	1415	LEAR	47	GB	1017.8	1023.1	24.5D	510.0			QL=6 ST=2 TYP=5
	1415	ATHN	47	GB	1021.3	1023.0	19.0	650.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	1021.5	1033.0	20.1D	88.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1047.1	1051.3	8.7	190.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1537.5	1537.8	3.0	15.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1539.1	1539.1	.2D	21.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1539.3	1539.5	.5D	720.0			QL=6 ST=2 TYP=5
	4995	PALE	4	S/F	2025.0	2028.0	6.0D	56.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2025.0	2028.1	6.0D	72.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2025.0	2028.1	6.0D	83.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2025.0	2028.6	6.0D	440.0			QL=6 ST=2 TYP=3
09	245	LEAR	43	NS	0048.0	0223.6	606.0D	21.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0048.0	0544.6	606.0D	25.0			QL=6 ST=2 TYP=1
	4995	LEAR	4	S/F	0027.6	0032.5	10.0D	220.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0027.8	0032.6	9.7D	430.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0028.5	0032.6	7.6	340.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0028.8	0032.8	9.5	500.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0029.0	0032.1	8.8D	170.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0029.6	0032.0	10.5	480.0			QL=6 ST=3 TYP=3
	2695	PALE	4	S/F	0029.6	0032.8	10.7D	180.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	0029.6	0032.8	10.7D	170.0			QL=6 ST=3 TYP=3
	8800	PALE	4	S/F	0029.6	0032.8	10.7D	400.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0030.1	0032.1	1437.5D	370.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0030.1	0034.3	9.2D	41.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0030.5	0033.3	9.1D	48.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0031.8	0034.0	9.2D	1800.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0337.0	0337.6	1.6D	42.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0337.1	0337.6	1.7	62.0			QL=6 ST=2 TYP=3
10	245	SGMR	43	NS	1218.0	2001.6	545.0D	240.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2206.0	0721.3	768.0D	380.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0258.0	0258.5	1.3	300.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0341.3	0345.0	11.0D	670.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0343.6	0345.3	3.7D	390.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0344.8	0346.3	2.5	30.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	0537.0E		45.8D				QL=5 ST=2 TYP=5
	1415	LEAR	47	GB	0554.3	0556.3	19.7D	600.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	0554.3	0557.6	23.7	67.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0554.3	0559.1	24.7D	180.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0554.3	0559.1	24.8D	82.0			QL=6 ST=2 TYP=3
	1415	LEAR	47	GB	0625.0	0628.5	37.0	11.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0759.1	0759.6	4.9D	43.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0759.6	0759.6	3.7	17.0			QL=6 ST=2 TYP=3
11	245	SGMR	43	NS	1218.0	1716.8	547.0D	390.0			QL=6 ST=2 TYP=1
	1415	LEAR	8	S	0547.6	0548.6	1.4	6.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0547.8	0547.8	1.3D	1500.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0547.8	0548.0	1.5D	27.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0547.8	0548.8	2.2D	260.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0801.8	0803.0	2.2D	1500.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0802.1	0803.0	2.5	20.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0914.3	0916.0	2.8D	62.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JANUARY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	1415	LEAR	4	S/F	0914.6	0916.1	2.2	130.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0914.6	0917.5	3.2D	100.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0915.1	0916.0	2.5D	430.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1139.1	1145.1	14.9D	32.0			QL=5 ST=3 TYP=4
	8800	ATHN	4	S/F	1144.3	1145.1	4.3	10.0			QL=5 ST=3 TYP=4
	4995	ATHN	4	S/F	1350.6	1356.5	13.2D	80.0			QL=5 ST=3 TYP=3
	8800	ATHN	4	S/F	1352.1	1356.5	11.7	76.0			QL=5 ST=3 TYP=3
	1415	SGMR	4	S/F	1354.3	1356.5	6.2D	63.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1356.0	1356.6	3.0D	32.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1356.1	1356.3	2.9	119.0			QL=6 ST=2 TYP=3
	1415	ATHN	47	GB	1356.1	1356.5	1.0D	43.0			QL=5 ST=3 TYP=5
	4995	SGMR	4	S/F	1356.1	1356.5	2.7D	139.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1548.0	1549.5	3.5D	81.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1549.1	1549.5	2.4	64.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1850.3	1852.1	6.7D	61.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1851.1	1853.0	5.9	27.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1851.3	1853.0	5.5D	16.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1851.6	1852.3	4.4D	18.0			QL=6 ST=2 TYP=3
12	410	LEAR	43	NS	2308.5	0929.8	705.5D	30.0			QL=6 ST=2 TYP=1
	606	LEAR	4	S/F	0030.3	0032.6	6.5	81.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0031.1	0034.6	4.5D	670.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0308.8	0314.3	9.0D	10.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0312.0	0315.3	7.3D	9.0			QL=6 ST=2 TYP=4
	15400	LEAR	4	S/F	0312.0	0315.8	7.3	29.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0312.1	0312.3	6.2D	58.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0312.1	0315.3	8.2D	44.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0312.3	0315.3	9.3D	30.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0355.3	0357.3	4.2	48.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1359.5	1359.6	6.3D	340.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1400.0	1400.3	8.0	110.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1400.1	1400.1	.9D	200.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1729.3	1730.5	2.2	100.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1729.6	1729.8	1.7D	19.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2351.1	2351.3	.5	38.0			QL=6 ST=2 TYP=3
13	245	SGMR	43	NS	1217.0	1501.1	550.0D	57.0			QL=6 ST=2 TYP=1
	1415	MANI	47	GB	0019.1	0020.1	2.2D	50.0			QL=6 ST=2 TYP=5
	2695	MANI	4	S/F	0019.1	0020.1	3.2D	34.0			QL=6 ST=2 TYP=4
	4995	MANI	8	S	0019.8	0020.1	1.7	11.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0319.6	0321.1	2.7	75.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0319.6	0321.1	2.5D	44.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0320.0	0321.8	6.6D	47.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0320.3	0321.8	6.3	57.0			QL=6 ST=2 TYP=4
	1415	MANI	8	S	0441.6	0442.1	.9	11.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	0441.6	0443.3	5.4D	28.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0441.8	0442.1	2.0	29.0			QL=6 ST=3 TYP=5
	410	LEAR	4	S/F	0441.8	0443.3	2.3D	75.0			QL=6 ST=3 TYP=3
	410	SGMR	8	S	1919.5	1920.8	1.6D	130.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1920.5	1920.6	.6	45.0			QL=6 ST=2 TYP=3
14	410	SGMR	43	NS	1358.6	1412.1	448.4D	23.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1358.6	1540.8	448.4D	77.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2209.0	0520.1	766.0D	64.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2209.0	0856.1	766.0D	350.0			QL=6 ST=2 TYP=1
	606	SGMR	4	S/F	1221.6	1223.8	4.4	130.0			QL=4 ST=2 TYP=3
	245	SGMR	47	GB	1222.1	1222.3	6.4D	660.0			QL=4 ST=2 TYP=5
	410	SGMR	8	S	1315.3	1316.5	1.7D	41.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1315.8	1316.3	1.5	270.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1353.6	1357.5	4.7D	130.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1353.8	1355.3	4.8	39.0			QL=6 ST=2 TYP=3
15	410	LEAR	43	NS	0500.0	0649.8	355.0D	11.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1216.0	1749.8	553.0D	72.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2211.0	0453.1	764.0D	85.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2349.8	0653.8	665.2D	13.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0242.6	0243.6	2.7	18.0			QL=6 ST=2 TYP=3
16	245	SGMR	43	NS	1216.0	1249.1	554.0D	580.0			QL=6 ST=2 TYP=1
	606	PALE	4	S/F	0041.3	0042.3	2.7	32.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
16	1415	PALE	4	S/F	0041.3	0043.1	2.7D	240.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1010.8	1012.3	5.0D	22.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	1011.0	1011.6	2.6D	30.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	1011.0	1012.3	2.6D	26.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	1011.0	1012.5	3.0D	11.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	1011.1	1012.1	2.5D	42.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	1011.1	1012.3	2.5	21.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1011.3	1012.1	4.0	24.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	2037.0	2037.8	3.0	570.0			QL=6 ST=2 TYP=5
17	245	LEAR	43	NS	2211.0	0006.6	764.0D	62.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2211.0	0812.6	764.0D	23.0			QL=6 ST=2 TYP=1
18	245	PALE	43	NS	1718.0	1829.6	642.0D	100.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2213.0	0705.1	762.0D	55.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0142.8	0144.0	1.5D	11.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0143.6	0144.0	.5	8.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0830.8	0831.0	2.2	180.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1603.3	1604.1	1.0	19.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1604.1	1604.3	.4D	61.0			QL=6 ST=2 TYP=3
19	245	SGMR	43	NS	1214.0	2053.3	560.0D	480.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2213.0	0320.1	762.0D	85.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0054.1	0100.3	19.9	110.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0057.8	0100.1	14.7D	150.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0100.0	0100.5	10.0D	190.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1442.5	1442.6	4.5	54.0			QL=6 ST=2 TYP=3
21	245	LEAR	43	NS	0535.5	0909.3	318.5	41.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2214.0	0444.8	760.0D	9.0			QL=6 ST=2 TYP=1
	1415	LEAR	4	S/F	0825.3	0831.8	14.8D	16.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0826.8	0834.0	12.8	24.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0829.3	0836.5	9.0D	24.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0829.6	0834.3	7.5D	15.0			QL=6 ST=2 TYP=3
22	245	SGMR	43	NS	1212.0	1427.6	566.0D	77.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2215.0	0804.3	760.0D	110.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2359.0	0922.0	656.0D	19.0			QL=6 ST=2 TYP=1
23	245	LEAR	43	NS	2216.0	0103.3	758.0D	86.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2216.0	0814.1	758.0D	20.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0150.8	0151.1	.8D	130.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0150.8	0151.3	1.2D	7.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0151.0	0151.3	.8	13.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0151.0	0151.5	.6D	33.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0206.0	0206.5	1.1	22.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0442.5	0443.1	1.0	8.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0444.6	0445.1	1.9D	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0444.6	0445.1	1.5D	41.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0545.6	0545.6	.2	39.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0617.0	0617.1	2.6D	20.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0617.1	0619.1	2.5	6.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0746.5	0747.3	3.5D	25.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0746.5	0747.6	4.0D	85.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0746.6	0747.3	1.7D	200.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0747.3	0747.5	.5	9.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0747.3	0747.5	.7D	7.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1253.1	1253.3	3.2D	90.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1732.0	1737.0	9.0	720.0			QL=5 ST=2 TYP=5
	245	SGMR	47	GB	1732.6	1737.1	7.7	650.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1757.1	1757.5	3.0	1100.0			QL=6 ST=2 TYP=5
24	410	SGMR	43	NS	1211.0	1836.5	569.0D	46.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1211.0	1909.0	569.0D	940.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1715.0	1752.1	648.0D	540.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1715.0	2114.3	375.0D	1.0			QL=6 ST=2 TYP=1
	15400	LEAR	4	S/F	0057.8	0059.1	4.2	25.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0057.8	0100.3	5.3D	35.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0058.1	0058.8	4.0D	24.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0058.1	0100.3	4.0D	29.0			QL=6 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JANUARY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	2695	LEAR	4	S/F	0058.3	0058.8	3.7D	23.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0106.3	0106.6	1.8	16.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0106.6	0107.0	1.4D	48.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0641.3	0644.0	3.5	2.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0641.5	0643.0	1.6D	22.0			QL=6 ST=2 TYP=3
25	410	SGMR	43	NS	1530.0	1656.8	372.0D	20.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1530.0	1749.1	372.0D	220.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1715.0	1716.6	648.0	290.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0630.6	0631.5	1.2D	11.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0630.6	0631.6	2.0D	69.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0631.3	0631.5	.8	9.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0950.1	0950.5	1.0	260.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1443.5	1447.1	7.5D	33.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1444.0	1447.1	5.1	13.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1444.1	1447.8	6.0D	31.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1445.8	1446.8	3.0D	110.0			QL=6 ST=2 TYP=3
	1415	ATHN	8	S	1446.6	1447.6	1.7D	20.0			QL=6 ST=2 TYP=4
	8800	ATHN	8	S	1446.8	1447.6	2.0	4.0			QL=6 ST=2 TYP=4
	4995	ATHN	8	S	1446.8	1447.6	2.0D	6.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1656.5	1658.3	3.3D	26.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1656.6	1657.3	3.7D	850.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1656.8	1656.8	3.0D	26.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1659.5	1659.8	2.3	9.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1717.5	1717.6	2.1D	22.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1717.6	1719.1	3.4D	30.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1717.6	1719.1	4.4D	58.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1718.6	1719.3	2.9	27.0			QL=6 ST=2 TYP=3
	15400	SGMR	47	GB	2058.0	2100.3	44.0D	2000.0			QL=4 ST=2 TYP=5
	1415	MANI	47	GB	2248.3	2251.1	5.5	60.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	2257.0	2303.8	19.8	190.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	2257.1	2304.8	20.4D	160.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	2257.8	2303.6	17.2	350.0			QL=6 ST=2 TYP=5
26	245	LEAR	43	NS	2218.0	0508.1	756.0D	170.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2218.0	0732.5	756.0D	45.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0140.5	0141.6	2.3	52.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0701.8	0704.0	4.2D	44.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0701.8	0704.0	3.8	27.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0702.0	0703.5	2.6D	119.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	0702.0	0703.6	2.3	32.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0702.3	0704.0	3.5D	31.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2000.3	2003.0	5.7	110.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2001.1	2002.3	5.4D	11.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2002.0	2002.3	9.5D	24.0			QL=6 ST=2 TYP=3
27	410	SGMR	43	NS	1208.0	1249.1	576.0D	31.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1208.0	1804.1	576.0D	220.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1802.0	0119.0	603.0D	119.0			QL=6 ST=3 TYP=1
	410	PALE	43	NS	1802.0	2312.6	603.0D	28.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2218.0	0210.5	756.0D	110.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2218.0	0738.3	756.0D	37.0			QL=6 ST=2 TYP=1
	2695	MANI	4	S/F	0235.1	0235.8	3.0D	17.0			QL=6 ST=3 TYP=4
	1415	MANI	4	S/F	0235.1	0236.0	3.9D	10.0			QL=6 ST=3 TYP=4
	4995	MANI	47	GB	0235.1	0236.1	2.2	24.0			QL=6 ST=3 TYP=5
	1415	LEAR	4	S/F	0235.1	0236.1	3.0D	17.0			QL=5 ST=2 TYP=3
	8800	LEAR	8	S	0235.3	0236.1	1.3	21.0			QL=5 ST=2 TYP=3
	4995	LEAR	4	S/F	0235.3	0236.1	2.2D	26.0			QL=5 ST=2 TYP=3
	2695	LEAR	8	S	0235.5	0236.1	1.5D	23.0			QL=5 ST=2 TYP=3
	606	LEAR	4	S/F	0235.5	0236.6	2.3D	100.0			QL=5 ST=2 TYP=3
	4995	LEAR	4	S/F	0339.8	0344.1	8.3D	110.0			QL=5 ST=2 TYP=3
	8800	LEAR	4	S/F	0340.8	0344.1	7.2D	150.0			QL=5 ST=2 TYP=3
	8800	MANI	47	GB	0341.8	0344.0	6.7	89.0			QL=6 ST=2 TYP=5
	15400	LEAR	4	S/F	0342.1	0344.0	4.7	73.0			QL=5 ST=2 TYP=3
	2695	LEAR	4	S/F	0342.1	0344.1	4.9D	41.0			QL=5 ST=2 TYP=3
	1415	LEAR	4	S/F	0343.1	0344.1	3.0D	11.0			QL=5 ST=2 TYP=3
	8800	ATHN	47	GB	1145.5E	1150.6	23.6D	2100.0			QL=5 ST=3 TYP=5
	4995	ATHN	47	GB	1145.5	1151.6	33.3	1300.0			QL=6 ST=3 TYP=5
	1415	ATHN	47	GB	1145.6	1151.8	28.5D	240.0			QL=6 ST=3 TYP=5
	245	SGMR	47	GB	1756.0	1758.8	4.8	630.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JANUARY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
27	245	PALE	4	S/F	1758.1	1759.1	3.2	440.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1814.6	1816.3	5.4D	26.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1814.8	1816.3	4.2D	48.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1814.8	1816.5	3.5	43.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2332.1	2334.5	2.9D	180.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	2332.1	2334.5	2.9D	94.0			QL=6 ST=3 TYP=3
	2695	PALE	4	S/F	2332.1	2334.5	2.9	130.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	2332.3	2334.6	4.8D	110.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	2333.0	2335.5	4.8D	160.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	2333.3	2334.6	3.0D	139.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	2334.1	2334.6	1.0	47.0			QL=6 ST=3 TYP=3
28	245	SGMR	43	NS	1207.0	1559.5	579.0D	75.0			QL=6 ST=2 TYP=1
	1415	PALE	4	S/F	0259.8	0304.3	8.7D	21.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	0300.0	0306.1	7.5D	130.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0303.8	0306.5	4.5D	31.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0304.8	0305.0	1.8	41.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0733.6	0738.3	6.9	59.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1848.3	1849.8	4.0D	31.0			QL=6 ST=2 TYP=4
	8800	SGMR	8	S	1849.0	1850.0	2.0D	13.0			QL=6 ST=2 TYP=4
	245	SGMR	4	S/F	1853.8	1854.0	3.2	119.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	2333.0	2334.8	3.1D	110.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	2333.8	2334.8	2.5	160.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	2334.1	2334.8	3.2D	5.0			QL=6 ST=2 TYP=4
29	245	SGMR	43	NS	1206.0	1530.6	581.0D	1500.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2219.0	0623.1	753.0D	18.0			QL=6 ST=2 TYP=1
	245	SGMR	47	GB	1530.5	1530.6	3.1	1500.0			QL=6 ST=2 TYP=5
	2695	SGMR	8	S	1736.8	1737.8		48.0			QL=6 ST=3 TYP=3
	8800	SGMR	8	S	1736.8	1738.0		91.0			QL=6 ST=3 TYP=3
	606	SGMR	8	S	1737.0	1738.1		5.0			QL=6 ST=3 TYP=3
	4995	SGMR	8	S	1737.3	1737.8		58.0			QL=6 ST=3 TYP=3
	15400	SGMR	8	S	1737.5	1737.5		40.0			QL=6 ST=3 TYP=3
30	245	LEAR	43	NS	2220.0	0821.5	752.0D	18.0			QL=6 ST=2 TYP=1
	245	SGMR	8	S	1542.6	1542.6	.2	320.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1732.0	1737.0	10.0D	21.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1732.0	1737.0	8.0	23.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1732.0	1737.0	10.5D	39.0			QL=6 ST=2 TYP=4
	1415	SGMR	4	S/F	1734.0	1737.1	12.3D	68.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1734.6	1738.8	11.2D	30.0			QL=6 ST=2 TYP=4
	410	SGMR	4	S/F	1734.8	1742.1	10.8D	26.0			QL=6 ST=2 TYP=4
	245	SGMR	4	S/F	1737.1	1744.1	10.0D	81.0			QL=6 ST=2 TYP=4
	245	LEAR	8	S	2254.8	2255.1	1.5D	31.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2255.0	2255.1	.6	10.0			QL=6 ST=2 TYP=3
31	245	LEAR	8	S	0316.3	0316.6	1.0D	39.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0316.5	0316.6	.6D	11.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0316.6	0316.8	1.5	150.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0816.6	0816.8	1.0D	150.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0816.6	0816.8	.7	18.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	2253.1	2253.3	10.2	35.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

FEBRUARY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
01	245	LEAR	43	NS	0830.0	0925.0	143.0D	26.0			QL=6 ST=2 TYP=1
	410	LEAR	44	NS	2222.0E	0438.1	750.0D	32.0			QL=6 ST=2 TYP=1
	2695	LEAR	4	S/F	0346.8	0348.1	28.7D	63.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0346.8	0348.1	23.8D	56.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0347.6	0348.6	9.5	5.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1011.5	1013.1	5.8D	33.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1011.8	1013.1	6.0	83.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1012.5	1013.1	3.8D	11.0			QL=6 ST=2 TYP=3
02	245	SGMR	43	NS	1202.0	2049.6	590.0D	150.0			QL=6 ST=2 TYP=1
	606	MANI	8	S	0311.8	0312.0	1.3D	7.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0311.8	0312.6	2.2D	13.0			QL=6 ST=2 TYP=4
	4995	MANI	8	S	0312.0	0312.6	1.0	11.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	0312.3	0312.6	.3D	11.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0640.0	0644.3	6.8D	13.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0641.0	0644.8	9.0D	290.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0643.1	0643.3	1.0	7.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1751.8	1759.0	8.0D	22.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1752.8	1754.5	9.3D	27.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1752.8	1759.0	15.0D	23.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1753.1	1759.0	7.7D	25.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1753.3	1756.6	8.8D	18.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1753.8	1754.3	1.3D	68.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1753.8	1754.6	2.3	420.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	2321.3	2321.6	2.7	9.0			QL=6 ST=2 TYP=3
03	245	SGMR	43	NS	1201.0	1530.1	593.0D	240.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1201.0	1755.1	593.0D	44.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1532.8	1543.6	381.2D	54.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2252.0	0225.8	719.0D	78.0			QL=6 ST=2 TYP=1
	410	LEAR	47	GB	0859.8E	0901.3	4.8D	550.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0910.6	0911.3	1.0D	87.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0910.8	0911.0	.5	44.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1002.3	1010.1	35.3D	90.0			QL=5 ST=2 TYP=4
	1415	ATHN	4	S/F	1004.8	1009.8	27.3D	100.0			QL=5 ST=2 TYP=4
	4995	ATHN	4	S/F	1005.1	1010.3	32.9	31.0			QL=5 ST=2 TYP=4
	8800	ATHN	4	S/F	1007.1	1010.5	30.5	53.0			QL=2 ST=3 TYP=4
	245	LEAR	47	GB	1032.0	1034.1	4.0D	1399.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	1033.3	1034.1	2.5D	46.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	1035.3	1035.6	.7	23.0			QL=6 ST=2 TYP=3
	4995	ATHN	47	GB	1317.8	1339.3	88.5	510.0			QL=5 ST=2 TYP=5
	8800	SGMR	47	GB	1320.0	1339.8	69.0D	360.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	1325.3	1339.6	79.8	400.0			QL=2 ST=2 TYP=4
	15400	SGMR	4	S/F	1334.1	1340.6	15.2	82.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1506.0	1510.5	26.8	15000.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1550.1	1551.1	2.9	260.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1600.1	1605.3	7.0D	430.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1605.0	1605.8	1.3	280.0			QL=6 ST=2 TYP=3
04	245	SGMR	43	NS	1523.0	1738.1	392.0D	130.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2223.0	0707.0	748.0D	52.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2223.0	2304.1	748.0D	44.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0501.8	0502.8	5.8D	1500.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0502.0	0502.6	5.8D	119.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0502.0	0503.0	1.6D	8.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0502.0	0503.1	1.8	20.0			QL=6 ST=2 TYP=3
	1415	MANI	8	S	0503.6	0504.6	1.5	23.0			QL=6 ST=2 TYP=4
	606	MANI	8	S	0503.8	0504.5	1.5D	8.0			QL=6 ST=2 TYP=4
	245	LEAR	47	GB	0636.1	0645.0	10.2D	220.0			QL=6 ST=3 TYP=5
	410	LEAR	47	GB	0636.1	0645.3	10.0	19.0			QL=6 ST=3 TYP=5
	245	SGMR	47	GB	1523.0	1523.1	2.0	520.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1708.1	1713.3	6.2	2100.0			QL=6 ST=2 TYP=5
05	245	SGMR	43	NS	1159.0	1422.0	597.0D	210.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1159.0	1525.6	597.0D	87.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2224.1	2246.1	745.9D	119.0			QL=6 ST=3 TYP=1
	410	LEAR	8	S	0236.6	0237.3	1.0	8.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0236.8	0238.5	2.5D	64.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0703.3	0704.3	3.3D	61.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0703.3	0704.3	2.2D	19.0			QL=6 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

FEBRUARY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
05	4995	ATHN	8	S	0703.8	0704.1	.8D	17.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0703.8	0704.3	3.0	43.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	0704.1	0704.3	2.5	66.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0737.0	0739.6	14.5	29.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	1023.6	1023.8	.7	100.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	1023.8	1024.1	.8D	170.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	1222.8	1224.3	5.2	37.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1223.3	1224.3	4.7D	9.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1319.3	1320.3	2.8	70.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1319.3	1320.5	3.7D	32.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1724.5	1725.1	11.6D	60.0			QL=6 ST=3 TYP=3
	8800	SGMR	47	GB	1724.5	1725.1	12.3	430.0			QL=6 ST=3 TYP=5
	4995	SGMR	4	S/F	1724.5	1726.0	11.6D	200.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	2030.0	2030.8	1.1	27.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2030.0	2030.8	1.6D	73.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2050.8	2051.0	.7	55.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	2311.3	2313.8	3.3D	47.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	2311.5	2313.3	3.1D	110.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	2312.3	2313.3	1.7	62.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	2312.8	2313.1	1.0D	16.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	2312.8	2313.3	1.0D	10.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	2354.0	2357.1	4.8	57.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	2355.0	2355.8	4.3D	62.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2355.0	2358.1	4.3D	37.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2355.8	2355.8	3.5D	44.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	2356.0	2356.6	3.0D	150.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2356.3	2356.8	3.0	180.0			QL=6 ST=2 TYP=3
06	245	SGMR	43	NS	1158.0	1801.3	600.0D	91.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2224.0	0141.1	746.0D	26.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2224.0	0558.8	746.0D	150.0			QL=6 ST=2 TYP=1
	606	LEAR	4	S/F	0108.0	0108.8	3.6	28.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0108.3	0109.5	1.7D	22.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0108.8	0109.3	2.8D	28.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0244.6	0247.0	3.0	80.0			QL=6 ST=2 TYP=3
	606	MANI	4	S/F	0245.0	0246.8	2.5	54.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0246.1	0247.1	1.4D	83.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0332.1	0334.8	5.5D	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0332.6	0334.8	6.7D	21.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0334.6	0335.0	2.0D	43.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0334.6	0335.0	.7	9.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0334.6	0335.1	2.0D	139.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0334.8	0335.1	2.2D	10.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0335.0	0335.8	1.5	64.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0335.5	0335.6	1.3D	41.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	0335.5	0335.6	1.3D	210.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1123.3	1123.8	3.3D	11.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1123.5	1124.1	3.3	13.0			QL=5 ST=2 TYP=3
	1415	SGMR	8	S	1719.8	1719.8	1.2D	82.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1719.8	1720.1	9.5D	150.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1719.8	1720.1	9.5D	45.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1719.8	1720.1	9.5D	20.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1720.0	1720.1	8.1	150.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1909.8	1909.8	.3	280.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1910.0	1910.1	1.0D	130.0			QL=6 ST=2 TYP=3
07	245	SGMR	43	NS	1156.0	1959.1	603.0D	52.0			QL=6 ST=2 TYP=1
	8800	LEAR	4	S/F	0142.1	0146.0	6.5D	35.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0143.5	0146.1	7.0	40.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0144.1	0146.1	3.9D	18.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0433.8	0436.3	9.5D	45.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0433.8	0436.3	8.5D	119.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0434.1	0434.3	6.9D	21.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0434.3	0436.3	4.8	98.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0434.3	0436.6	7.0D	33.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0709.1	0710.5	7.7	33.0			QL=2 ST=2 TYP=3
	4995	ATHN	4	S/F	0709.3	0710.6	6.3	4.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	0717.8	0721.1	6.5	42.0			QL=2 ST=2 TYP=3
	4995	ATHN	4	S/F	0718.1	0722.1	7.5	15.0			QL=5 ST=2 TYP=3
08	245	SGMR	43	NS	1155.0	1648.3	605.0D	74.0			QL=6 ST=2 TYP=1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

FEBRUARY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
08	245	PALE	43	NS	1830.0	1959.1	588.0	119.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2225.0	0832.8	744.0D	87.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2225.0	1009.1	744.0D	100.0			QL=6 ST=2 TYP=1
	8800	LEAR	4	S/F	0142.1	0146.0	6.5D	35.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0143.5	0146.1	48.0	40.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0144.1	0146.1	3.9D	18.0			QL=6 ST=3 TYP=3
	1415	ATHN	4	S/F	0904.0	0906.3	14.3D	460.0			QL=5 ST=2 TYP=3
	8800	ATHN	47	GB	0904.3	0906.6	21.3	2200.0			QL=2 ST=2 TYP=5
	15400	LEAR	47	GB	0904.5	0907.6	11.5	2300.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0904.8	0906.3	13.3	440.0			QL=5 ST=2 TYP=3
	245	PALE	47	GB	2031.1	2038.0	22.0	5700.0			QL=6 ST=2 TYP=5
09	245	SGMR	43	NS	1154.0	1541.6	608.0D	340.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1710.0	0032.5	668.0D	320.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1710.0	2206.8	668.0D	30.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2226.0	0903.0	742.0D	410.0			QL=2 ST=2 TYP=1
	410	LEAR	43	NS	2345.0	0903.8	663.0D	26.0			QL=2 ST=2 TYP=1
	2695	SGMR	4	S/F	1550.1	1551.0	2.2D	11.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1550.1	1551.0	2.2	45.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1550.1	1551.0	2.2D	36.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1551.1	1552.0	2.4D	119.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1551.1	1552.0	2.4D	160.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1551.1	1552.1	2.4D	61.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1611.3	1611.6	1.5D	63.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1611.6	1611.8	2.4	130.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1611.6	1611.8	1.2D	61.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2106.1	2110.1	4.9D	2.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2109.6	2110.0	1.4	260.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2113.8	2113.8	4.3D	119.0			QL=6 ST=2 TYP=3
10	245	SGMR	43	NS	1153.0	1619.5	610.0D	380.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1153.0	1903.5	610.0D	75.0			QL=6 ST=2 TYP=1
	1415	ATHN	43	NS	1532.0	1532.3	7.5D	180.0			QL=5 ST=2 TYP=1
	410	PALE	43	NS	1710.0	0019.6	668.0D	37.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1710.0	0118.5	668.0D	780.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2226.0	0808.6	742.0D	770.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2226.0	0954.3	22.0D	21.0			QL=6 ST=2 TYP=1
	4995	MANI	4	S/F	0429.0	0431.3	3.6D	49.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0429.1	0430.8	5.2D	59.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0429.6	0431.3	3.0	91.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0429.8	0431.1	3.5D	24.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0430.1	0430.8	4.5	15.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0430.1	0431.1	3.0D	9.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0430.5	0431.3	2.6D	9.0			QL=6 ST=2 TYP=4
	2695	LEAR	8	S	0447.0	0447.6	1.6D	62.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0447.1	0447.6	1.5D	34.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0447.1	0447.6	1.5D	22.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0447.1	0447.6	1.5D	55.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0447.1	0447.6	.9	13.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0735.0	0735.6	2.1	24.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1528.0	1530.6	12.0	190.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	1534.3	1534.8	5.0	23.0			QL=5 ST=2 TYP=4
	245	SGMR	47	GB	1544.0	1556.8	23.0	1000.0			QL=6 ST=2 TYP=5
	606	SGMR	8	S	1824.3	1824.6	1.2	77.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1849.8	1850.6	4.2D	28.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1850.1	1851.3	2.0	75.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2014.1	2014.6	1.9D	35.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2014.3	2014.8	1.5	139.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	2021.0	2025.8	9.1D	220.0			QL=6 ST=3 TYP=5
	410	SGMR	47	GB	2025.1	2025.8	4.0	680.0			QL=6 ST=3 TYP=5
	1415	SGMR	4	S/F	2025.1	2025.8	3.4D	15.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	2329.6	2330.5	1.7D	76.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	2330.0	2330.1	1.5D	290.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	2330.0	2330.6	3.6D	60.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	2330.0	2330.8	3.6D	6.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	2330.1	2330.8	3.4D	15.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	2330.1	2330.8	2.4D	13.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	2330.3	2330.3	2.8D	79.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	2330.6	2330.6	2.7	41.0			QL=6 ST=3 TYP=3
11	245	SGMR	43	NS	1151.0	1303.1	72.1D	550.0			QL=6 ST=3 TYP=1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

FEBRUARY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
11	245	SGMR	43	NS	1151.0	1310.8	79.8D	1800.0			QL=6 ST=3 TYP=1
	410	SGMR	43	NS	1151.0	1417.6	613.0D	139.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1710.0	0108.1	668.0D	590.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1710.0	2129.3	668.0D	180.0			QL=6 ST=2 TYP=1
	245	LEAR	44	NS	2227.0E	0504.3	397.3D	540.0			QL=6 ST=3 TYP=1
	245	LEAR	44	NS	2227.0E	0605.6	458.6D	1700.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	2227.0	0839.1	740.0D	130.0			QL=3 ST=2 TYP=1
	410	LEAR	4	S/F	0018.3	0018.6	4.3D	57.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0018.3	0018.6	3.7	370.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0018.3	0019.6	2.3D	130.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0019.3	0020.5	2.3D	72.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0019.3	0020.5	4.3D	40.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0019.3	0020.6	5.7D	29.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0019.8	0020.6	1.8D	81.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0022.5	0022.6	3.3D	49.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0106.1	0106.8	3.0	130.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0517.0	0518.3	2.1	180.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1023.5	1024.8	7.3	26.0			QL=2 ST=2 TYP=3
	4995	ATHN	4	S/F	1023.6	1026.0	4.9	7.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	1030.8	1035.6	17.3	11.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1032.1	1034.1	16.7	34.0			QL=2 ST=2 TYP=3
	606	SGMR	8	S	1257.8	1258.1	2.0D	139.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1258.0	1259.3	1.8	98.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1849.8	1850.3	2.2	850.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	2035.3	2035.6	.8	110.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2036.6	2037.0	1.4D	380.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2036.6	2037.3	7.4D	170.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2036.6	2037.3	7.4D	360.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2036.6	2037.5	1.4D	170.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2036.8	2037.1	8.2D	200.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2036.8	2037.3	1.2D	139.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	2036.8	2037.5	1.2D	1300.0			QL=6 ST=2 TYP=5
	4995	PALE	8	S	2036.8	2037.5	1.2D	370.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2036.8	2037.5	5.8D	130.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2037.0	2037.3	1.0	210.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	2037.3	2044.8	4131.5D	940.0			QL=6 ST=2 TYP=5
12	410	PALE	43	NS	1709.0	0142.0	669.0D	150.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1709.0	2330.6	669.0D	960.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2228.0	0142.1	738.0	270.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2228.0	2231.6	738.0D	610.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0437.8	0439.3	1.8	280.0			QL=6 ST=2 TYP=3
	1415	LEAR	47	GB	0832.5	0837.6	18.0D	950.0			QL=6 ST=3 TYP=5
	8800	LEAR	4	S/F	0832.6	0841.3	18.0D	300.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0833.8	0841.3	17.2D	110.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0834.0	0841.1	16.0	290.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0834.1	0841.5	19.9D	210.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0836.0	0840.1	12.5D	150.0			QL=6 ST=3 TYP=3
	8800	MANI	47	GB	0839.0	0841.8	6.0	260.0			QL=6 ST=2 TYP=5
	15400	LEAR	4	S/F	0841.1	0850.0	4847.7	290.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0909.3	0912.8	8.5	11.0			QL=5 ST=2 TYP=4
	8800	ATHN	4	S/F	0909.6	0912.5	8.2	27.0			QL=2 ST=2 TYP=4
	1415	LEAR	4	S/F	0910.6	0912.1	6.2D	110.0			QL=6 ST=3 TYP=3
	2695	ATHN	4	S/F	0910.8	0911.6	10.8	43.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0910.8	0911.6	7.2D	65.0			QL=6 ST=3 TYP=3
	1415	ATHN	4	S/F	0910.8	0912.3	6.3	99.0			QL=5 ST=2 TYP=3
	8800	LEAR	4	S/F	0911.6	0912.5	3.0	15.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0911.6	0913.0	5.4D	69.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1722.0	1723.0	11.6	680.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	1957.0	2002.8	18.1	119.0			QL=6 ST=2 TYP=4
	410	PALE	4	S/F	2001.6	2007.8	16.5D	43.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2005.8	2006.8	3.5D	25.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2011.5	2012.1	1.6D	17.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2156.0	2156.1	1.5	1000.0			QL=6 ST=2 TYP=5
13	245	SGMR	44	NS	1149.0E	1309.1	80.1D	240.0			QL=6 ST=3 TYP=1
	410	PALE	43	NS	1710.0	1833.1	668.0D	87.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1710.0	2329.1	668.0D	710.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2228.0	0310.1	738.0D	620.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2228.0	0519.8	738.0D	2100.0			QL=6 ST=2 TYP=1

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
13	606	LEAR	4	S/F	0015.6	0017.8	2.9	38.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0516.0	0516.6	.8D	25.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0516.1	0516.6	.7	139.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0640.3	0641.1	1.3D	65.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0640.6	0641.1	1.0D	20.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0640.8	0641.0	.7D	530.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0640.8	0641.1	.8D	29.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0640.8	0641.3	1.2	39.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0641.0	0641.3	.8D	8.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0641.1	0641.1	.5D	150.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1223.5	1224.5	6.0D	1000.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1223.5	1224.5	6.0	250.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1320.5	1326.5	11.3D	350.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1324.3	1327.3	6.5	139.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1326.1	1328.3	5.2D	27.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1509.3	1509.8	1.3	59.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1509.6	1509.8	.7D	300.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	1926.0	1927.5	3.8	1199.0			QL=1 ST=3 TYP=5
	606	SGMR	47	GB	1926.3	1927.6	3.7	1300.0			QL=6 ST=2 TYP=5
	15400	PALE	8	S	2137.3	2138.0	1.3D	110.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2137.3	2138.1	4.3	150.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2137.8	2138.0	8.3	170.0			QL=6 ST=2 TYP=3
14	245	SGMR	43	NS	1147.0	1255.6	621.0D	460.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1147.0	1852.8	621.0D	56.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1710.0	0058.1	668.0D	47.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1710.0	2211.8	668.0D	320.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2229.0	2308.6	736.0D	180.0			QL=6 ST=2 TYP=1
	8800	LEAR	4	S/F	0028.3	0029.1	3.8D	220.0			QL=6 ST=2 TYP=3
	8800	MANI	8	S	0028.5	0029.3	1.5	270.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0028.6	0029.1	1.2	170.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0508.5	0509.3	6.8D	150.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0509.0	0509.5	1.3	64.0			QL=6 ST=2 TYP=3
	8800	MANI	8	S	0509.0	0509.8	2.0	200.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0511.3	0512.1	2.0D	1100.0			QL=6 ST=2 TYP=5
	1415	MANI	8	S	0517.5	0517.8	1.1D	18.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0717.8	0718.8	6.7D	86.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0718.6	0718.8	1.0	40.0			QL=6 ST=2 TYP=3
15	245	SGMR	44	NS	1146.0E	1244.8	58.8D	119.0			QL=6 ST=3 TYP=1
	245	PALE	43	NS	1709.0	2000.5	671.0D	670.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1709.0	2013.3	671.0D	41.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2229.0	0435.1	736.0D	260.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2229.0	2359.8	736.0D	23.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0057.8	0058.1	2.3D	24.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0059.3	0100.3	2.0D	8.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0059.5	0100.3	.8D	4.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0059.8	0100.3	.8D	21.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0100.0	0100.1	.6	19.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0100.0	0100.5	1.1D	5.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1455.6	1455.8	3.4	130.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	2103.1	2105.3	14.7D	119.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	2103.6	2117.1	15.4D	13.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2104.3	2106.8	26.7	740.0			QL=6 ST=2 TYP=5
	2695	SGMR	4	S/F	2109.0	2113.3	10.5D	43.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2109.1	2113.8	8.5D	33.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2109.8	2110.0	5.2D	21.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2110.0	2113.3	8.0	58.0			QL=6 ST=2 TYP=3
16	245	SGMR	43	NS	1145.0	1935.6	546.0D	64.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	2100.0	2122.8	440.0D	22.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2230.0	0449.8	734.0D	52.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0240.6	0240.8	.5	25.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1446.0	1446.6	2.1	72.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1446.1	1447.1	2.0D	100.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1446.6	1447.1	3.5D	11.0			QL=6 ST=2 TYP=3
17	245	SGMR	43	NS	1143.0	1943.1	629.0D	150.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1710.0	1942.8	670.0D	230.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2230.0	2321.1	734.0D	130.0			QL=6 ST=2 TYP=1

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
17	4995	MANI	4	S/F	0312.5	0313.5	2.3	30.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0840.5	0841.6	5.5	27.0			QL=5 ST=2 TYP=4
19	245	LEAR	43	NS	2232.0	0014.8	730.0D	67.0			QL=6 ST=2 TYP=1
20	2695	SGMR	4	S/F	2016.0	2017.3	3.0D	16.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2016.1	2017.3	3.0D	22.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2016.6	2017.5	2.0	46.0			QL=6 ST=2 TYP=3
21	245	LEAR	43	NS	2232.0	0011.1	730.0D	42.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2232.0	0804.8	730.0D	28.0			QL=6 ST=2 TYP=1
	245	SGMR	8	S	1353.6	1353.8	.5	74.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1354.0	1357.6	4.1	180.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1357.1	1357.8	.9D	8.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1632.3	1632.5	.8	230.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1640.0	1640.3	.6	86.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1723.8	1724.0	.5	66.0			QL=6 ST=2 TYP=3
22	245	LEAR	43	NS	2233.0	0658.8	728.0D	42.0			QL=6 ST=3 TYP=1
23	245	LEAR	43	NS	2234.0	0547.1	726.0D	21.0			QL=6 ST=2 TYP=1
25	410	SGMR	8	S	1621.3	1621.5	.8D	220.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1621.3	1621.6	5.8D	80.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1621.3	1621.6	6.8D	90.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1621.3	1621.6	2.5	24.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1621.5	1622.0	6.3D	40.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1949.3	1952.3	3.5	83.0			QL=6 ST=2 TYP=5
26	245	LEAR	43	NS	2235.0	2256.1	722.0D	43.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0219.1	0220.8	2.2	11.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0843.6	0845.1	3.5	17.0			QL=5 ST=2 TYP=3
	606	LEAR	4	S/F	0844.3	0846.3	2.7D	260.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0844.6	0844.6	2.4	7.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0844.6	0845.1	.7D	65.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0844.8	0845.1	2.2D	17.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0845.0	0845.0	.6D	16.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1151.3	1152.1	1.8	650.0			QL=6 ST=3 TYP=5
	1415	ATHN	8	S	1151.6	1152.3	1.0D	13.0			QL=5 ST=2 TYP=3
	2695	ATHN	8	S	1151.6	1152.3	1.4D	31.0			QL=5 ST=2 TYP=3
	4995	ATHN	8	S	1151.8	1152.3	1.7	10.0			QL=5 ST=2 TYP=3
	410	SGMR	8	S	1152.1	1152.3	1.0D	170.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1152.3	1152.5	1.5D	160.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1448.1	1449.3	2.4D	64.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1448.3	1450.1	5.0D	310.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1449.3	1449.8	1.0D	17.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1449.3	1449.8	1.2D	200.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1449.5	1450.0	1.5	11.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1449.5	1450.0	1.0D	63.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1741.0	1745.0	11.6D	18.0			QL=6 ST=2 TYP=4
	1415	SGMR	4	S/F	1741.5	1750.8	16.6	39.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1742.1	1748.0	16.9D	30.0			QL=6 ST=2 TYP=4
27	245	LEAR	43	NS	2235.0	0005.8	153.1	37.0			QL=6 ST=2 TYP=1
	606	PALE	4	S/F	0326.0	0327.1	43.5D	77.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0326.6	0327.1	3.0D	65.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0326.6	0327.3	3.7D	26.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0326.6	0327.3	4.0	24.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0335.0	0356.5	32.3	160.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0337.6	0356.1	25.7D	22.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0338.0	0401.0	34.0D	94.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0338.0	0401.1	34.0D	130.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0340.0	0346.0	7.0D	53.0			QL=6 ST=2 TYP=5
	4995	PALE	4	S/F	0340.0	0400.6	32.0D	79.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0343.3	0345.5	5.3	8.0			QL=6 ST=2 TYP=4
	8800	MANI	47	GB	0347.8	0400.6	23.8	91.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	2104.8	2107.1	3.3D	40.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2105.0	2107.0	3.0D	11.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2107.6	2108.1	1.2	89.0			QL=6 ST=2 TYP=3
28	245	LEAR	8	S	0115.3	0116.6	1.8	26.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
28	245	LEAR	8	S	0948.8	0949.0	1.5	119.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1205.1	1206.1	30.7	280.0			QL=5 ST=2 TYP=3
	4995	SGMR	4	S/F	1205.1	1206.3	7.4D	290.0			QL=4 ST=3 TYP=3
	2695	ATHN	4	S/F	1205.1	1206.3	11.5D	180.0			QL=5 ST=2 TYP=3
	410	SGMR	47	GB	1205.1	1206.5	5.9D	13999.0			QL=4 ST=3 TYP=5
	15400	SGMR	47	GB	1205.1	1206.8	7.7D	580.0			QL=4 ST=3 TYP=5
	8800	ATHN	47	GB	1205.5	1206.3	30.5	610.0			QL=2 ST=2 TYP=5
	8800	SGMR	47	GB	1206.0	1206.3	6.8D	730.0			QL=4 ST=3 TYP=5
	245	SGMR	47	GB	1206.0	1206.6	4.5	50000.0			QL=4 ST=3 TYP=5
	2695	SGMR	4	S/F	1206.0	1207.1	7.0D	290.0			QL=4 ST=3 TYP=3
	410	PALE	8	S	2246.3	2246.6	1.0D	39.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2246.3	2246.6	1.0	119.0			QL=6 ST=2 TYP=3
29	1415	SGMR	4	S/F	1443.8	1443.8	3.2D	33.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1447.0	1449.1	3.0	26.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
01	245	LEAR	43	NS	0330.0	0409.0	425.0D	11.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2237.0	0547.3	717.0D	62.0			QL=6 ST=2 TYP=1
02	410	LEAR	43	NS	0139.0	0823.5	535.0D	17.0			QL=6 ST=2 TYP=1
	245	LEAR	44	NS	2237.0E	0249.8	298.0D	25.0			QL=6 ST=3 TYP=1
	245	LEAR	4	S/F	0139.1	0139.8	2.5	130.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0304.1	0307.0	5.0D	26.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0305.8	0307.3	3.3	15.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1633.5	1637.5		130.0			QL=6 ST=3 TYP=3
	4995	SGMR	8	S	1633.5	1637.5		370.0			QL=6 ST=3 TYP=3
	8800	SGMR	47	GB	1633.8	1637.5		900.0			QL=6 ST=3 TYP=5
	15400	SGMR	47	GB	1634.5	1638.8		1100.0			QL=6 ST=3 TYP=5
	410	PALE	4	S/F	1900.1	1905.8	12.7D	49.0			QL=6 ST=2 TYP=4
	245	PALE	4	S/F	1900.1	1909.6	13.4	180.0			QL=6 ST=2 TYP=4
	606	PALE	4	S/F	1900.6	1905.8	10.2D	42.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	1901.3	1909.6	9.3	330.0			QL=6 ST=2 TYP=5
03	245	LEAR	8	S	0236.1	0236.3	.5	150.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0357.3	0358.6	1.8	20.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2008.1	2008.5	.7D	29.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2008.3	2008.6	.5	76.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2049.8	2052.1	4.0	97.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2050.0	2051.3	3.1D	49.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2050.3	2052.5	2.8	130.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2050.5	2051.0	4.5D	16.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2050.5	2051.0	4.5D	35.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2050.5	2051.1	5.1D	55.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2050.5	2051.5	2.1D	10.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2050.5	2051.5	2.1D	18.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2050.6	2051.6	2.2D	50.0			QL=6 ST=2 TYP=3
04	4995	ATHN	8	S	1009.1	1009.5	1.2D	24.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1009.1	1009.5	1.0	69.0			QL=6 ST=2 TYP=3
	1415	ATHN	8	S	1009.3	1009.6	1.0D	13.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	1009.5	1009.8	.8D	8.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	1018.5	1019.6	1.8D	24.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	1018.8	1019.5	1.5D	65.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	1019.0	1019.5	2.5D	24.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	1019.0	1019.6	1.5D	13.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	1019.1	1019.3	2.4	58.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	1019.1	1019.8	1.7D	49.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	1019.5	1019.8	.6D	13.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1348.8	1349.8	1.8D	27.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1349.0	1349.8	2.0D	82.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1349.1	1349.8	2.2D	240.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1349.1	1350.1	2.2	260.0			QL=6 ST=2 TYP=3
05	245	LEAR	43	NS	2239.0	0132.3	332.0D	26.0			QL=6 ST=2 TYP=1
06	2695	ATHN	4	S/F	1052.8	1054.6	7.2D	11.0			QL=5 ST=2 TYP=3
	1415	ATHN	4	S/F	1053.1	1054.3	9.0D	37.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	1054.0	1054.5	4.8	6.0			QL=5 ST=2 TYP=3
09	245	LEAR	47	GB	0205.6	0206.3	6.5	119.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0214.3	0218.0	10.2	72.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0355.1	0356.1	2.0	250.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1400.0	1400.3	2.0	150.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1400.0	1400.5	2.0D	15.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2054.1	2056.0	3.9	270.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2215.0	2215.1	.3	8.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	2215.0	2215.1	.6D	130.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	2315.0	2315.1	.3	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2315.0	2315.1	.6D	130.0			QL=6 ST=2 TYP=3
10	245	LEAR	43	NS	2240.0	2247.8	706.0D	25.0			QL=6 ST=3 TYP=1
	245	LEAR	4	S/F	0623.1	0624.0	5.0	41.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1952.1	1954.1	2.4	119.0			QL=6 ST=2 TYP=3
11	245	PALE	8	S	0053.5	0054.1	1.8	410.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0053.6E	0054.1	2.0D	350.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
11	410	LEAR	8	S	0703.8	0703.8	.2	10.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0703.8	0704.0	.5D	74.0			QL=6 ST=2 TYP=3
12	245	SGMR	8	S	2105.1	2105.3	.7	470.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2105.1	2105.3	.7D	7.0			QL=6 ST=2 TYP=3
13	245	LEAR	4	S/F	0637.3	0638.6	4.7	19.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0812.8	0813.6	1.5D	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0813.1	0813.3	.9D	7.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0813.3	0813.5	.8	11.0			QL=6 ST=2 TYP=3
15	245	LEAR	4	S/F	0231.3	0231.6	2.8	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0411.3	0411.6	.5	11.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0905.5	0910.1	5.0D	27.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0908.1	0910.1	2.4	54.0			QL=6 ST=2 TYP=3
19	245	LEAR	43	NS	0143.0	0657.6	516.0D	62.0			QL=6 ST=2 TYP=1
	410	LEAR	47	GB	0319.3	0319.5	4.8D	530.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0319.3	0319.8	2.7	52.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0522.8	0524.3	4.3D	34.0			QL=6 ST=2 TYP=3
	606	MANI	47	GB	0523.1	0523.3	2.9D	160.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	0523.1	0524.1	3.2	29.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0523.3	0524.1	3.8D	23.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0523.6	0524.1	2.4	20.0			QL=2 ST=2 TYP=3
	2695	ATHN	8	S	0523.6	0524.3	1.0D	26.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	0523.6	0524.5	2.4	13.0			QL=5 ST=2 TYP=3
	410	LEAR	8	S	0524.0	0524.1	1.3D	130.0			QL=6 ST=2 TYP=3
	2695	MANI	8	S	0524.0	0524.5	1.1	27.0			QL=6 ST=2 TYP=4
	1415	LEAR	8	S	0524.0	0524.5	2.0D	29.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0524.0	0524.6	2.1D	23.0			QL=6 ST=2 TYP=4
	606	LEAR	8	S	0524.1	0524.1	1.4D	360.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0524.3	0524.8	1.0D	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0726.6	0726.8	.5	41.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0726.6	0727.1	1.2D	220.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0735.3	0737.3	2.3D	130.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0735.5	0735.8	2.0	7.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0805.5	0806.6	2.6	100.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	0805.6	0806.5	2.0	150.0			QL=2 ST=2 TYP=3
	2695	ATHN	4	S/F	0805.6	0806.6	2.9D	55.0			QL=5 ST=2 TYP=3
	606	MANI	47	GB	0805.6	0806.8	2.4D	340.0			QL=6 ST=2 TYP=5
	2695	MANI	4	S/F	0805.8	0806.6	4.2D	51.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0806.0	0806.6	5.0D	65.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0806.0	0807.5	4.0D	61.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0806.1	0806.6	3.0	100.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0929.8	0930.8	1.3D	9.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0930.5	0930.6	.5	6.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1436.8	1440.3	5.2D	62.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1437.1	1439.8	4.7D	119.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1437.1	1439.8	4.4D	21.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1437.1	1440.3	5.0	42.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1439.0	1440.5	2.8D	25.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1439.1	1440.5	3.0D	20.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1439.8	1440.1	2.5D	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1735.6	1737.5	4.0D	8.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1735.6	1737.5	4.0D	19.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1736.0	1737.5	3.0	34.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1925.0	1925.5	1.1	100.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1946.3	1948.5	4.8D	49.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1946.3	1948.5	4.7D	46.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1946.3	1948.5	4.5D	16.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1946.3	1948.5	6.2D	17.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1947.0	1948.3	5.5	7.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1947.0	1948.3	5.5D	13.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2302.0	2304.6	3.5D	310.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2304.3	2304.5	.5D	22.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2304.3	2304.5	.7	41.0			QL=6 ST=2 TYP=3
21	245	PALE	4	S/F	0132.5	0147.3	19.5	400.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	0149.8	0150.0	1.5D	29.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0150.0	0150.3	1.3D	22.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
22	245	LEAR	8 S	0950.5	0951.0	1.5D	29.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0950.6	0950.6	1.0	9.0			QL=6 ST=2 TYP=3
23	245	LEAR	43 NS	2244.0	0346.6	690.0D	63.0			QL=6 ST=2 TYP=1
	410	LEAR	8 S	0117.8	0118.0	.3	130.0			QL=6 ST=2 TYP=3
	2695	SGMR	8 S	1207.3	1207.3	1.0D	7.0			QL=6 ST=2 TYP=3
	1415	SGMR	8 S	1207.5	1207.6	.8D	13.0			QL=6 ST=2 TYP=3
	606	SGMR	8 S	1207.5	1207.6	.8	150.0			QL=6 ST=2 TYP=3
	245	SGMR	8 S	1223.6	1223.8	.7	55.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	1223.6	1223.8	.5D	33.0			QL=6 ST=2 TYP=3
	1415	SGMR	4 S/F	1655.6	1657.3	3.7D	26.0			QL=6 ST=2 TYP=3
	4995	SGMR	4 S/F	1656.0	1657.5	4.0D	21.0			QL=6 ST=2 TYP=3
	8800	SGMR	4 S/F	1656.8	1657.1	3.2D	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1656.8	1657.8	3.2D	28.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	1656.8	1658.1	2.5D	25.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	1658.5	1658.6	.6	34.0			QL=6 ST=2 TYP=3
24	245	LEAR	43 NS	2245.0	0435.8	688.0D	70.0			QL=6 ST=2 TYP=1
	245	LEAR	8 S	0957.3	0957.8	.8	26.0			QL=6 ST=2 TYP=3
25	245	LEAR	43 NS	2246.0	0707.5	686.0	240.0			QL=6 ST=2 TYP=1
	245	LEAR	8 S	0254.1	0254.1	.2	11.0			QL=6 ST=2 TYP=3
	245	LEAR	4 S/F	0425.6	0426.6	4.4D	130.0			QL=5 ST=2 TYP=3
	606	LEAR	8 S	0427.1E	0428.1	2.0D	4.0			QL=5 ST=2 TYP=3
	410	LEAR	4 S/F	0427.3	0428.1	2.7D	30.0			QL=5 ST=2 TYP=3
	2695	LEAR	8 S	0856.0	0856.6	1.1D	23.0			QL=6 ST=2 TYP=3
	4995	LEAR	8 S	0856.0	0856.6	1.1D	22.0			QL=6 ST=2 TYP=3
	1415	LEAR	8 S	0856.0	0856.6	1.0D	16.0			QL=6 ST=2 TYP=3
	15400	LEAR	8 S	0856.1	0856.6	1.0	76.0			QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0856.1	0856.6	1.0D	34.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	1001.6	1001.8	.9	26.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	1001.6	1002.0	1.5D	230.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	1924.1	1924.6	.9	190.0			QL=6 ST=3 TYP=3
	2695	SGMR	8 S	1924.3	1924.6	.8D	10.0			QL=6 ST=3 TYP=3
	4995	SGMR	8 S	1924.3	1924.6	.8D	9.0			QL=6 ST=3 TYP=3
	1415	SGMR	8 S	1924.5	1924.8	.6D	8.0			QL=6 ST=3 TYP=3
	606	SGMR	8 S	1924.6	1924.6	.2D	13.0			QL=6 ST=3 TYP=3
	245	SGMR	47 GB	2145.1	2145.1	1260.4	1399.0			QL=6 ST=3 TYP=5
	410	SGMR	8 S	2145.1	2145.1	.2D	250.0			QL=6 ST=3 TYP=3
26	245	SGMR	43 NS	1040.0	2114.3	738.0D	88.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2246.0	0331.6	686.0D	170.0			QL=6 ST=2 TYP=1
	410	LEAR	43 NS	2246.0	0755.3	686.0D	96.0			QL=6 ST=2 TYP=1
	1415	PALE	4 S/F	0001.3	0007.8	7.7	28.0			QL=6 ST=2 TYP=3
	4995	PALE	4 S/F	0003.1	0006.3	5.9D	150.0			QL=6 ST=2 TYP=3
	2695	PALE	4 S/F	0003.1	0008.6	5.9D	139.0			QL=6 ST=2 TYP=3
	8800	PALE	4 S/F	0004.1	0007.3	4.9D	139.0			QL=6 ST=2 TYP=3
	15400	PALE	4 S/F	0005.3	0007.8	3.7D	78.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0517.1	0517.3	2.0D	220.0			QL=6 ST=3 TYP=3
	606	LEAR	8 S	0517.3	0517.8	1.0	13.0			QL=6 ST=3 TYP=3
	410	LEAR	8 S	0517.6	0517.8	1.0D	8.0			QL=6 ST=3 TYP=3
	1415	LEAR	8 S	0821.8	0822.5	1.3	20.0			QL=6 ST=2 TYP=3
	606	LEAR	8 S	0822.0	0822.6	1.3D	8.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	1326.0	1330.3	6.5D	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1328.0	1332.0	6.0D	13.0			QL=6 ST=2 TYP=3
	4995	SGMR	4 S/F	1328.1	1328.6	3.2D	15.0			QL=6 ST=2 TYP=3
	8800	SGMR	4 S/F	1328.1	1330.3	3.9D	83.0			QL=6 ST=2 TYP=3
	8800	ATHN	4 S/F	1328.3	1330.3	4.0	51.0			QL=2 ST=2 TYP=3
	15400	SGMR	4 S/F	1328.5	1330.0	5.1	83.0			QL=6 ST=2 TYP=3
	1415	SGMR	4 S/F	1328.6	1330.8	3.9D	16.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	1329.6	1330.8	2.0D	35.0			QL=6 ST=2 TYP=3
	1415	ATHN	4 S/F	1329.6	1330.8	4.0D	17.0			QL=5 ST=2 TYP=3
	245	SGMR	8 S	1329.8	1331.1	1.8D	190.0			QL=6 ST=2 TYP=3
	2695	ATHN	4 S/F	1330.1	1330.8	3.9	19.0			QL=5 ST=2 TYP=3
	2695	SGMR	4 S/F	1420.0	1422.0	3.0D	6.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	1420.0	1423.0	3.5D	27.0			QL=6 ST=2 TYP=3
	245	SGMR	4 S/F	1420.1	1421.0	2.2D	250.0			QL=6 ST=2 TYP=3
	1415	SGMR	4 S/F	1420.1	1421.1	2.7	7.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	1420.6	1420.8	1.7D	13.0			QL=6 ST=2 TYP=3
	245	SGMR	8 S	2002.1	2002.8	1.0	200.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
27	245	LEAR	43	NS	2246.0	0316.3	684.0D	42.0			QL=6 ST=2 TYP=1
28	245	SGMR	43	NS	1037.0	2218.5	743.0D	99.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1037.0	2224.3	743.0D	110.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	2031.0	2326.1	481.0D	700.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2247.0	0328.0	682.0D	250.0			QL=6 ST=2 TYP=1
	606	LEAR	47	GB	0436.0E	0447.8	17.0D	760.0			QL=6 ST=2 TYP=5
	1415	LEAR	47	GB	0436.8	0441.5	13.2	110.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0953.8	0954.3	8.7D	480.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0954.0	0956.3	6.0D	200.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0954.0	0956.3	7.0D	119.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0954.0	0958.1	7.1D	190.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0954.1	0956.5	4.7D	210.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0954.5	0956.6	19.1	320.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	0954.5	0956.6	5.1D	170.0			QL=5 ST=2 TYP=3
	1415	ATHN	4	S/F	0954.6	0956.6	11.0D	97.0			QL=5 ST=2 TYP=3
	8800	LEAR	4	S/F	0955.3	0956.1	3.3D	220.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0955.3	0956.1	2.2	230.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1000.0	2003.6	607.5	74.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1937.3	1941.8	14.0	1700.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1939.0	1942.0	10.8	1800.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1958.0	2003.1	9.0D	43.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1958.0	2003.5	9.5D	51.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2000.0	2003.6	7.5D	31.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2000.0	2003.6	7.5D	45.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2003.0	2004.8	4.0D	30.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2003.3	2004.3	2.5D	72.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2048.8	2054.1	1393.8	580.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2053.0	2054.3	7.3	890.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2157.8	2158.6	12.8	8200.0			QL=6 ST=2 TYP=5
	15400	SGMR	4	S/F	2157.8	2158.8	3.0	160.0			QL=6 ST=2 TYP=3
	1415	SGMR	47	GB	2157.8	2200.5	4.5D	3000.0			QL=6 ST=2 TYP=5
	606	MANI	47	GB	2200.0	2204.6	11.3	119.0			QL=1 ST=2 TYP=5
	410	LEAR	47	GB	2325.6	2326.1	2.4D	1600.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	2325.6	2326.3	.9	270.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	2352.0	2352.8	3.0D	91.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2352.5	2352.8	.6	810.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	2352.6	2353.0	.7D	940.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	2352.8	2353.1	.5	11.0			QL=6 ST=2 TYP=3
29	2695	ATHN	43	NS	0511.5	0514.1	5.5	61.0			QL=2 ST=2 TYP=1
	1415	ATHN	43	NS	0910.6	0918.5	14.9D	130.0			QL=1 ST=3 TYP=1
	245	PALE	43	NS	1655.0	0135.3	697.0D	390.0			QL=6 ST=2 TYP=1
	1415	LEAR	4	S/F	0041.3	0044.1	7.7D	27.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	0041.6	0043.3	2.7	660.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0041.8	0043.3	5.3D	410.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0042.3	0044.1	3.5D	27.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0042.8	0044.3	2.2D	48.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0043.1	0044.0	1.9D	19.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0043.1	0044.3	1.9	42.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0203.0	0205.3	3.0D	42.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0203.0	0207.1	9.0	40.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0242.8	0243.0	3.7D	30.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0244.8	0245.0	2.2	71.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0328.6	0330.8	5.4	630.0			QL=6 ST=3 TYP=5
	606	PALE	47	GB	0328.6	0331.3	6.4D	590.0			QL=6 ST=3 TYP=5
	606	LEAR	47	GB	0328.8	0331.6	7.2D	510.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0329.1	0329.5	5.0	7.0			QL=6 ST=2 TYP=3
	606	MANI	47	GB	0329.3	0331.8	6.3	240.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0400.1	0401.1	2.0D	290.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0400.1	0401.5	2.0	56.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0400.3	0401.1	1.8D	97.0			QL=6 ST=2 TYP=3
	2695	LEAR	47	GB	0510.8	0512.3	11.3D	2300.0			QL=6 ST=2 TYP=5
	1415	ATHN	47	GB	0510.8	0512.5	7.3	1800.0			QL=1 ST=2 TYP=5
	2695	MANI	47	GB	0511.8	0515.0	4.7	48.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0528.1	0529.5	7.7D	250.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0528.3	0529.1	2.5	13.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0528.3	0529.5	10.8D	260.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0553.6	0556.1	7.7	6.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0555.0	0559.1	10.3	97.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	410	LEAR	4 S/F	0555.3	0559.1	12.3D	170.0			QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0555.3	0604.1	13.3D	3300.0			QL=6 ST=2 TYP=5
	8800	ATHN	4 S/F	0612.6	0614.0	2.4	26.0			QL=2 ST=2 TYP=4
	245	LEAR	4 S/F	0645.6	0645.6	1400.2D	46.0			QL=6 ST=2 TYP=3
	606	LEAR	8 S	0645.6	0645.8	.2	1.0			QL=6 ST=2 TYP=3
	410	LEAR	4 S/F	0645.6	0655.6	123.0D	13.0			QL=6 ST=2 TYP=3
	606	LEAR	8 S	0713.6	0714.3	1.0	71.0			QL=6 ST=3 TYP=3
	410	LEAR	8 S	0713.8	0714.1	2.0D	63.0			QL=6 ST=3 TYP=3
	245	LEAR	8 S	0714.0	0714.3	.6D	220.0			QL=6 ST=3 TYP=3
	8800	ATHN	4 S/F	0736.0	0736.5	3.5	119.0			QL=2 ST=2 TYP=3
	606	MANI	47 GB	0736.0	0736.6	3.8	119.0			QL=6 ST=2 TYP=5
	410	LEAR	4 S/F	0744.1	0745.5	6.9D	210.0			QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0744.6	0745.6	7.0D	610.0			QL=6 ST=2 TYP=5
	606	LEAR	4 S/F	0744.8	0745.3	4.0D	260.0			QL=6 ST=2 TYP=3
	1415	LEAR	4 S/F	0744.8	0745.8	2.5	34.0			QL=6 ST=2 TYP=3
	245	LEAR	4 S/F	0815.1	0816.8	4.2D	130.0			QL=6 ST=2 TYP=3
	410	LEAR	4 S/F	0815.6	0816.6	3.9D	160.0			QL=6 ST=2 TYP=3
	1415	LEAR	8 S	0816.1	0817.8	1.9	13.0			QL=6 ST=2 TYP=3
	606	LEAR	4 S/F	0816.8	0817.6	1021.3D	240.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0839.1	0839.3	2.0D	79.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0839.3	0839.6	.5D	28.0			QL=6 ST=2 TYP=3
	1415	LEAR	8 S	0839.6	0839.6	1.5	9.0			QL=6 ST=2 TYP=3
	8800	LEAR	47 GB	0858.1	0858.6	1.2D	970.0			QL=6 ST=2 TYP=5
	15400	LEAR	8 S	0858.1	0858.6	.9	35.0			QL=6 ST=2 TYP=3
	1415	MANI	47 GB	0859.8	0900.1	1.5	740.0			QL=6 ST=2 TYP=5
	606	LEAR	49 GB	0910.1	0918.0	17.5D	650.0			QL=6 ST=3 TYP=7
	1415	LEAR	49 GB	0910.6	0919.1	12.0D	119.0			QL=6 ST=3 TYP=7
	410	LEAR	49 GB	0911.6	0918.1	16.2D	260.0			QL=6 ST=3 TYP=7
	2695	ATHN	47 GB	0911.8	0918.5	10.7	52.0			QL=1 ST=3 TYP=5
	2695	LEAR	49 GB	0913.0	0918.3	9.5D	23.0			QL=6 ST=3 TYP=7
	245	LEAR	49 GB	0916.6	0919.1	12.2D	830.0			QL=6 ST=3 TYP=7
	4995	LEAR	49 GB	0916.8	0918.1	4.2D	139.0			QL=6 ST=3 TYP=7
	8800	LEAR	49 GB	0916.8	0918.1	3.0D	480.0			QL=6 ST=3 TYP=7
	15400	LEAR	49 GB	0917.3	0918.1	2.3	960.0			QL=6 ST=3 TYP=7
	8800	ATHN	47 GB	0917.5	0918.5	5.1	850.0			QL=2 ST=3 TYP=5
	1415	LEAR	47 GB	0939.6	0941.0	3.2D	1800.0			QL=6 ST=2 TYP=5
	2695	LEAR	4 S/F	0940.0	0940.6	2.3D	60.0			QL=6 ST=2 TYP=3
	4995	LEAR	4 S/F	0940.3	0941.3	2.2D	46.0			QL=6 ST=2 TYP=3
	4995	MANI	47 GB	0940.8	0942.1		55.0			QL=6 ST=2 TYP=5
	8800	LEAR	8 S	0941.0	0941.1	.8	990.0			QL=6 ST=2 TYP=3
	410	LEAR	47 GB	0951.1	0955.1	11.5D	790.0			QL=6 ST=3 TYP=5
	8800	LEAR	47 GB	0954.6	0955.1	2.0D	570.0			QL=6 ST=3 TYP=5
	15400	LEAR	8 S	0954.6	0955.1	2.0	380.0			QL=6 ST=3 TYP=3
	2695	LEAR	8 S	0954.6	0955.1	1.7D	130.0			QL=6 ST=3 TYP=3
	1415	LEAR	47 GB	0954.6	0955.3	2.7D	7000.0			QL=6 ST=3 TYP=5
	8800	ATHN	47 GB	0954.6	0955.5	3.5	370.0			QL=2 ST=2 TYP=5
	4995	LEAR	4 S/F	0954.8	0955.3	2.3D	110.0			QL=6 ST=3 TYP=3
	245	LEAR	4 S/F	0954.8	0955.3	5.7D	170.0			QL=6 ST=3 TYP=3
	606	LEAR	47 GB	0955.0	0955.6	5.1D	2900.0			QL=6 ST=3 TYP=5
	2695	ATHN	47 GB	0955.1	0955.5	2.7	110.0			QL=1 ST=2 TYP=5
	410	SGMR	4 S/F	1138.8	1139.3	3.2D	220.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	1139.1	1139.8	4.0D	330.0			QL=6 ST=2 TYP=3
	245	SGMR	4 S/F	1139.8	1141.6	2.8	94.0			QL=6 ST=2 TYP=3
	2695	SGMR	8 S	1216.3	1216.8	.8D	16.0			QL=6 ST=3 TYP=3
	245	SGMR	47 GB	1217.0	1217.1	.6	1399.0			QL=6 ST=3 TYP=5
	410	SGMR	8 S	1217.0	1217.1	.3D	23.0			QL=6 ST=3 TYP=3
	245	SGMR	4 S/F	1248.1	1249.6	2.7	28.0			QL=6 ST=2 TYP=3
	606	SGMR	47 GB	1249.1	1253.1	4.0D	75.0			QL=6 ST=2 TYP=5
	410	SGMR	8 S	1249.3	1249.6	1.5D	19.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	1357.1	1357.5	4.0	180.0			QL=6 ST=3 TYP=3
	606	SGMR	47 GB	1442.1	1444.1	8.0D	3000.0			QL=6 ST=2 TYP=5
	1415	SGMR	4 S/F	1443.0	1444.8	6.8	33.0			QL=6 ST=2 TYP=3
	606	PALE	47 GB	2017.8	2018.5	3.0	1500.0			QL=6 ST=2 TYP=5
	606	SGMR	47 GB	2018.0	2018.5	1.1D	870.0			QL=6 ST=2 TYP=5
	410	SGMR	8 S	2018.6	2018.8	.5	43.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	2039.5	2041.5	2.3D	350.0			QL=6 ST=2 TYP=3
	410	SGMR	4 S/F	2040.3	2041.8	3.0	71.0			QL=6 ST=2 TYP=3
	8800	SGMR	4 S/F	2041.0	2042.3	7.0D	29.0			QL=6 ST=2 TYP=3
	606	PALE	47 GB	2128.1	2130.1	4.9	3100.0			QL=6 ST=2 TYP=5
	606	SGMR	47 GB	2130.5	2130.6	1.8	2200.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
29	4995	MANI	4	S/F	2232.3	2235.1	4.2D	24.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	2234.0	2235.1	2.5D	10.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	2234.1	2235.1	2.4D	3.0			QL=6 ST=2 TYP=4
	8800	MANI	8	S	2234.3	2235.1	2.0	59.0			QL=6 ST=2 TYP=3
	2695	MANI	8	S	2234.5	2235.1	1.8D	17.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	2303.6	2304.5	6.9D	16.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	2303.8	2310.0	7.2	38.0			QL=6 ST=2 TYP=3
30	245	SGMR	43	NS	1033.0	1927.5	750.0D	250.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1033.0	2000.3	750.0D	110.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2247.0	0716.1	680.0D	60.0			QL=6 ST=2 TYP=1
	606	PALE	47	GB	0156.3	0156.8	3.0D	1199.0			QL=6 ST=2 TYP=5
	410	PALE	4	S/F	0156.5	0156.6	3.8	59.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0156.6	0156.8	1.5	1300.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0205.3	0206.1	1.0D	49.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	0205.3	0209.1	5.5	5100.0			QL=6 ST=2 TYP=5
	4995	LEAR	8	S	0205.5	0205.6	.5	5.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0205.5	0205.6	.5D	5.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0205.5	0205.6	.6D	5.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0205.5	0205.6	1.1D	380.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0205.6	0205.8	1.0D	7.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0208.8	0209.1	.7D	5.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0209.0	0209.0	1.0	420.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0209.0	0209.1	.6D	110.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0209.0	0209.1	.1	6.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0209.1	0209.1	2.0D	6100.0			QL=6 ST=2 TYP=5
	1415	LEAR	8	S	0209.1	0209.3	1.2D	180.0			QL=6 ST=2 TYP=3
	1415	MANI	8	S	0209.1	0209.5	1.2	139.0			QL=6 ST=2 TYP=3
	100	MANI	8	S	0209.3	0209.8		30.0			QL=3 ST=3 TYP=4
	410	LEAR	8	S	0251.5	0252.3	1.5	190.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0252.1	0252.8	1.2D	110.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0301.5	0302.6	2.1	76.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0301.6	0302.5	2.0D	200.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0301.6	0302.6	2.0	160.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0302.0	0302.6	2.1D	64.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0322.1	0322.6	.7D	100.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0322.1	0322.6	1.4	34.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0322.3	0322.6	.8D	110.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0348.1	0348.3	.5D	36.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0348.3	0348.6	.5	380.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0428.8	0429.1	.8	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0429.1	0429.3	1.4D	190.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0641.6	0650.3	16.5	31.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0649.8	0650.1	1.5	580.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0655.3	0656.1	4.3D	34.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0655.6	0656.1	2.4	130.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1525.0	1525.6	1.6D	13.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1525.0	1525.6	1.1	130.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1525.0	1526.3	24.3D	130.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1525.0	1527.1	4.5D	170.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1525.1	1525.8	1.7D	28.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1525.3	1526.0	4.3	25.0			QL=2 ST=2 TYP=3
	245	SGMR	47	GB	1619.8	1620.0	3.5	2600.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1840.6	1844.3	5.9	2100.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1841.0	1844.3	9.5	2000.0			QL=6 ST=3 TYP=5
	8800	SGMR	8	S	1841.3	1841.8	1.3D	23.0			QL=6 ST=3 TYP=3
	606	SGMR	47	GB	1841.3	1841.8	7.7D	110.0			QL=6 ST=3 TYP=5
	4995	SGMR	8	S	1841.3	1842.1	1.5D	11.0			QL=6 ST=3 TYP=3
	410	SGMR	47	GB	1841.5	1850.3	9.5D	660.0			QL=6 ST=3 TYP=5
	245	PALE	4	S/F	1958.0	2005.6	12.1	260.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1959.3	2000.3	8.2D	130.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1959.8	2000.1	7.5D	180.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2040.0	2045.3	11.0D	300.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2044.5	2045.0	6.3D	230.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2044.8	2049.6	7.5D	280.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2045.8	2049.6	5.8	210.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2049.1	2050.0	1.5D	200.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2049.3	2049.5	.5D	58.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2049.3	2049.6	.7D	60.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2049.3	2049.8	1.3	130.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MARCH 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
30	2695	MANI	4	S/F	2227.5	2239.1	18.0D	70.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	2227.5	2239.3	18.0	61.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	2227.5	2239.6	19.5D	50.0			QL=6 ST=2 TYP=4
	245	SGMR	4	S/F	2236.1	2240.5	6.5D	210.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2236.8	2238.8	8.7	67.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2237.0	2238.5	8.5D	13.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2237.5	2238.8	3.8D	71.0			QL=6 ST=2 TYP=3
31	245	SGMR	43	NS	1100.0	1947.0	724.0D	76.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1508.0	1533.1	476.0D	17.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0049.0	0050.1	7.3D	139.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0049.1	0050.1	2.9D	2600.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0049.1	0050.1	3.0D	61.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0049.1	0050.5	10.0D	290.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0049.3	0050.3	5.5D	190.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0049.3	0052.0	2.7	2700.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0049.6	0050.1	5.0D	119.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0049.6	0050.1	3.4	210.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0049.6	0050.1	4.5D	42.0			QL=6 ST=2 TYP=3
	2695	MANI	8	S	0050.6	0051.3	1.4D	43.0			QL=6 ST=2 TYP=3
	1415	MANI	8	S	0050.6	0051.3	1.5D	47.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0050.6	0051.3	2.9D	86.0			QL=6 ST=2 TYP=3
	8800	MANI	8	S	0050.8	0051.3	1.7	200.0			QL=6 ST=2 TYP=3
	606	MANI	47	GB	0050.8	0051.6	5.0D	200.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0202.0	0202.1	1.0	79.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0202.0	0202.3	.3D	139.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0202.0	0202.5	1.3D	510.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0202.0	0202.6	1.0	680.0			QL=6 ST=2 TYP=5
	1415	LEAR	8	S	0206.8	0207.1	.8	210.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0558.1	0558.8	1.2	200.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0630.3	0630.8	1.0D	32.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0630.6	0631.0	.7	6.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0630.6	0631.1	1.2D	460.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0633.1	0633.6	1.2	710.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0705.5	0706.0	.8	119.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1123.6	1124.1	2.9	22.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1123.6	1124.1	2.7	119.0			QL=2 ST=2 TYP=3
	1415	ATHN	8	S	1123.6	1124.1	1.4D	16.0			QL=5 ST=2 TYP=3
	410	SGMR	47	GB	1123.8	1124.1	.8	2300.0			QL=6 ST=2 TYP=5
	410	PALE	4	S/F	1930.8	1932.3	2.7	45.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1931.0	1931.8	4.0D	220.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	1932.6	1933.0	4.2D	31.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	245	SGMR	43	NS	1030.0	2050.6	755.0D	220.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0159.8	0200.8	1.3	78.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1519.1	1526.0	10.9	34.0			QL=2 ST=2 TYP=3
	4995	SGMR	4	S/F	1523.8	1526.3	6.3D	32.0			QL=6 ST=3 TYP=3
	410	SGMR	47	GB	1524.5	1525.8	4.3D	610.0			QL=6 ST=3 TYP=5
	8800	SGMR	4	S/F	1524.5	1526.3	4.8D	22.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1524.6	1527.3	4.2	119.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1525.6	1525.6	3.5D	35.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1800.0	1801.1	3.3D	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1800.3	1801.1	2.0D	2.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1800.5	1801.1	1.3D	30.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1800.6	1800.8	.7	139.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1800.8	1801.0	.7D	54.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2020.5	2020.8	.6	119.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2337.1	2337.3	1.7	250.0			QL=6 ST=2 TYP=3
02	245	SGMR	43	NS	1028.0	1400.5	758.0D	170.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2248.0	0414.8	678.0D	92.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2248.0	0516.5	678.0D	280.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0031.1	0031.6	1.5D	68.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0031.3	0031.6	1.0D	45.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0031.5	0031.8	1.0	15.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0031.6	0032.1	.7D	37.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0902.1	0902.3	2.4D	290.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0902.3	0902.6	.8	35.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0902.3	0903.5	2.7D	80.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0903.1	0903.3	.7D	11.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1120.1	1121.3	2.4D	38.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1120.8	1121.3	1.3D	73.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1121.0	1121.5	1.5D	139.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1121.1	1121.3	1.0	41.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1121.1	1121.5	3.5	36.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1121.1	1121.5	2.2	139.0			QL=2 ST=2 TYP=3
	1415	ATHN	8	S	1121.3	1121.6	1.3D	15.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1659.8	1700.5	4.2	95.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1944.1	1950.8	14.5	59.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1945.3	1945.6	6.5	520.0			QL=6 ST=2 TYP=5
03	245	SGMR	43	NS	1026.0	1114.5	761.0D	110.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1900.0	2005.3	575.0D	87.0			QL=6 ST=2 TYP=1
	2695	LEAR	4	S/F	0114.3	0117.6	6.0D	39.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0115.0	0117.8	5.1D	30.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0117.1	0117.5	2.2	42.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0117.1	0117.8	3.0	40.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	0117.1	0117.8	1.5D	30.0			QL=6 ST=2 TYP=4
	4995	LEAR	4	S/F	0117.1	0117.8	3.0D	43.0			QL=6 ST=2 TYP=3
	2695	ATHN	47	GB	0636.1	0721.3	70.7	950.0			QL=5 ST=3 TYP=5
	8800	ATHN	47	GB	0636.6	0720.0	73.2	1300.0			QL=2 ST=3 TYP=5
	4995	MANI	4	S/F	0637.0	0638.6	6.3	52.0			QL=6 ST=2 TYP=4
	606	MANI	47	GB	0637.0	0638.8	3.8D	100.0			QL=6 ST=2 TYP=5
	2695	MANI	4	S/F	0637.3	0638.6	6.0D	22.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0637.3	0639.1	3.2D	8.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0651.1	0706.5	50.9D	190.0			QL=6 ST=3 TYP=4
	245	LEAR	47	GB	0652.0	0718.5	57.0D	610.0			QL=6 ST=3 TYP=5
	410	LEAR	4	S/F	0652.0	0719.0	48.0D	130.0			QL=6 ST=3 TYP=4
	1415	LEAR	4	S/F	0658.5	0721.0	51.5D	350.0			QL=6 ST=3 TYP=4
	4995	LEAR	47	GB	0700.0	0720.0	50.3D	1300.0			QL=6 ST=3 TYP=5
	2695	LEAR	47	GB	0700.0	0721.0	50.0D	1000.0			QL=6 ST=3 TYP=5
	8800	LEAR	47	GB	0704.0	0720.0	46.0D	1100.0			QL=6 ST=3 TYP=5
	8800	MANI	47	GB	0705.1	0720.0	35.4	1199.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0706.5	0721.0	43.5	420.0			QL=6 ST=3 TYP=5
04	245	SGMR	43	NS	1025.0	1242.5	763.0D	85.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1652.0	0009.3	703.0D	190.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2249.0	0619.6	674.0D	230.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2249.0	0622.3	674.0D	28.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0709.8	0710.3	.8D	250.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0710.0	0710.1	1.0D	170.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0710.0	0710.1	1.0	110.0			QL=6 ST=2 TYP=3
	606	MANI	8	S	0710.1	0710.3	.5	52.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
04	8800	ATHN	4	S/F	1139.3	1140.0	3.0	61.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1139.5	1140.0	.6	50.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1139.8	1139.8	.3D	119.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1139.8	1139.8	1.2D	18.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1139.8	1140.0	1.2D	60.0			QL=6 ST=2 TYP=3
	2695	ATHN	47	GB	1453.6	1507.3	70.7	580.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	1458.3	1507.5	63.3	130.0			QL=2 ST=2 TYP=3
05	245	SGMR	43	NS	1023.0	1635.3	767.0D	890.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1023.0	1646.8	767.0D	56.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1611.1	1839.6	418.9D	32.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1650.0	0316.3	707.0D	79.0			QL=6 ST=2 TYP=1
	606	PALE	43	NS	1650.0	2256.0	707.0D	43.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1650.0	2308.3	707.0D	430.0			QL=6 ST=2 TYP=1
	606	MANI	4	S/F	0553.3	0556.0	12.7D	24.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0553.8	0556.5	9.5	24.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0554.3	0556.5	11.7D	6.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1041.1	1041.6	6.2	65.0			QL=2 ST=2 TYP=3
	245	SGMR	47	GB	1542.1	1553.5	30.9	1399.0			QL=6 ST=2 TYP=5
	4995	MANI	4	S/F	2252.8	2256.1	7.3	48.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	2253.0	2256.1	5.5D	25.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	2253.8	2254.0	2.5D	38.0			QL=5 ST=2 TYP=3
	15400	LEAR	4	S/F	2254.0	2254.3	2.6	38.0			QL=5 ST=2 TYP=3
	606	MANI	4	S/F	2254.8	2256.1	5.3D	27.0			QL=6 ST=2 TYP=4
	1415	LEAR	4	S/F	2255.1	2256.0	2.7D	40.0			QL=5 ST=2 TYP=3
	4995	LEAR	8	S	2255.5	2256.0	.8D	35.0			QL=5 ST=2 TYP=3
	410	LEAR	4	S/F	2255.6	2256.0	2.4D	36.0			QL=5 ST=2 TYP=3
	2695	LEAR	8	S	2255.6	2256.3	1.0D	32.0			QL=5 ST=2 TYP=3
	606	LEAR	8	S	2255.8	2256.1	2.0D	18.0			QL=5 ST=2 TYP=3
	2695	MANI	8	S	2256.0	2256.1	1.8D	23.0			QL=6 ST=2 TYP=4
06	410	SGMR	43	NS	1021.0	1701.1	770.0D	119.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1021.0	1701.8	770.0D	980.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1631.0	1634.1	400.0D	65.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1659.0	0113.6	698.0D	500.0			QL=6 ST=2 TYP=1
	606	PALE	43	NS	1659.0	0131.6	698.0D	60.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1659.0	0314.8	698.0D	350.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	2249.0	0205.5	672.0D	110.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2249.0	0454.6	672.0D	150.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2250.0	2308.1	672.0D	350.0			QL=6 ST=2 TYP=1
	1415	MANI	4	S/F	0519.8	0521.3	3.3	26.0			QL=6 ST=2 TYP=4
	606	MANI	8	S	0521.0	0521.8	1.3D	30.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0527.6	0530.1	4.5	26.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1419.8	1426.1	74.0	510.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1621.0	1623.3	19.0D	46.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1622.3	1624.6	17.7D	27.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1623.1	1624.8	16.9	73.0			QL=6 ST=2 TYP=3
07	245	SGMR	43	N	1020.0	1831.6	772.0D	720.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1020.0	2018.3	772.0D	139.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1426.0	1529.0	526.0D	46.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2250.0	0515.5	670.0D	90.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2250.0	0913.8	670.0D	840.0			QL=6 ST=2 TYP=1
	4995	LEAR	4	S/F	0048.8	0105.3	25.0D	37.0			QL=6 ST=3 TYP=4
	410	LEAR	47	GB	0050.1	0103.8	18.7D	680.0			QL=6 ST=3 TYP=5
	4995	MANI	4	S/F	0050.8	0052.1	15.0	13.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0050.8	0105.1	23.0D	170.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0051.0	0108.1	22.8	54.0			QL=6 ST=3 TYP=4
	2695	LEAR	4	S/F	0051.1	0054.0	15.0D	32.0			QL=6 ST=3 TYP=4
	2695	MANI	4	S/F	0051.6	0053.6	14.2D	29.0			QL=6 ST=2 TYP=4
	1415	MANI	47	GB	0051.6	0102.6	18.4D	139.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0052.0	0053.8	14.0D	160.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0053.0	0106.5	16.5D	870.0			QL=6 ST=3 TYP=5
	1415	MANI	4	S/F	0138.6	0139.1	3.9D	13.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	0138.6	0139.3	1.7D	61.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	0138.8	0139.1	.8D	19.0			QL=6 ST=2 TYP=4
	8800	MANI	8	S	0138.8	0139.1	.8	47.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	0344.6	0347.3	5426.7D	30.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0344.6	0400.6	29.0D	64.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0346.1	0400.5	24.5D	45.0			QL=6 ST=2 TYP=4

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1980

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
07	4995	MANI	4 S/F	0347.1	0400.5	20.5	34.0			QL=6 ST=2 TYP=4
	606	MANI	4 S/F	0446.0	0500.1	23.3	29.0			QL=6 ST=2 TYP=3
	2695	ATHN	47 GB	0521.1	0554.8	56.7	77.0			QL=6 ST=2 TYP=5
	8800	ATHN	4 S/F	0521.6	0540.8	57.0	130.0			QL=2 ST=2 TYP=4
	8800	LEAR	4 S/F	0530.0	0540.8	50.0D	160.0			QL=6 ST=3 TYP=3
	8800	MANI	4 S/F	0530.1	0541.0	1414.0	130.0			QL=6 ST=3 TYP=3
	4995	LEAR	47 GB	0530.3	0540.8	51.8D	86.0			QL=6 ST=3 TYP=5
	2695	LEAR	47 GB	0530.6	0544.8	50.7D	76.0			QL=6 ST=3 TYP=5
	15400	LEAR	4 S/F	0530.8	0544.1	44.5	85.0			QL=6 ST=3 TYP=4
	4995	MANI	4 S/F	0531.0	0540.8	36.0D	67.0			QL=6 ST=3 TYP=3
	2695	MANI	47 GB	0531.3	0554.6	25.2D	56.0			QL=6 ST=3 TYP=5
	1415	LEAR	47 GB	0532.8	0554.8	41.2D	43.0			QL=6 ST=3 TYP=5
	410	LEAR	47 GB	0535.0	0554.5		500.0			QL=6 ST=3 TYP=5
	606	LEAR	47 GB	0535.8	0539.6		590.0			QL=6 ST=3 TYP=5
	606	MANI	47 GB	0536.5	0539.6	26.5D	290.0			QL=6 ST=3 TYP=5
	245	LEAR	47 GB	0536.5	0540.1		1800.0			QL=6 ST=3 TYP=5
	1415	MANI	47 GB	0538.5	0539.6	18.3D	40.0			QL=6 ST=3 TYP=5
	1415	LEAR	8 S	0540.0	0540.5		90.0			QL=6 ST=2 TYP=3
	245	SGMR	47 GB	1408.6	1413.1	21.4	750.0			QL=6 ST=2 TYP=5
	410	SGMR	47 GB	1452.0	1501.5	13.5D	260.0			QL=6 ST=2 TYP=5
	606	SGMR	4 S/F	1457.5	1500.1	6.8	180.0			QL=6 ST=2 TYP=3
	8800	SGMR	4 S/F	1840.1	1844.1	6.0	44.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1840.3	1844.0	12.5D	7.0			QL=6 ST=2 TYP=3
	4995	SGMR	4 S/F	1841.6	1844.1	8.5D	30.0			QL=6 ST=2 TYP=3
08	606	SGMR	43 NS	1018.0	1142.6	775.0D	83.0			QL=6 ST=2 TYP=1
	410	SGMR	43 NS	1018.0	1811.5	775.0D	62.0			QL=6 ST=2 TYP=1
	245	SGMR	43 NS	1018.0	1816.0	775.0D	560.0			QL=6 ST=2 TYP=1
	410	PALE	43 NS	1644.0	1758.8		240.0			QL=6 ST=3 TYP=1
	245	PALE	44 NS	1644.0E	1829.8	105.8D	540.0			QL=6 ST=3 TYP=1
	245	LEAR	43 NS	2251.0	0109.8	668.0D	540.0			QL=5 ST=2 TYP=1
	410	LEAR	43 NS	2251.0	0829.6	668.0D	46.0			QL=5 ST=2 TYP=1
	1415	LEAR	4 S/F	0259.8	0306.1	15.7D	16.0			QL=6 ST=3 TYP=3
	4995	LEAR	4 S/F	0300.0	0307.0	22.0D	130.0			QL=6 ST=3 TYP=3
	2695	LEAR	4 S/F	0300.0	0307.0	22.0D	74.0			QL=6 ST=3 TYP=3
	8800	LEAR	4 S/F	0300.1	0306.6	22.9D	200.0			QL=6 ST=3 TYP=3
	2695	PALE	4 S/F	0300.5	0307.1	64.5	81.0			QL=8 ST=2 TYP=3
	4995	PALE	4 S/F	0300.6	0306.8	64.4D	130.0			QL=8 ST=2 TYP=3
	8800	PALE	4 S/F	0300.8	0306.6	64.2D	180.0			QL=8 ST=2 TYP=3
	15400	PALE	4 S/F	0300.8	0306.6	64.2D	74.0			QL=8 ST=2 TYP=3
	15400	LEAR	4 S/F	0303.1	0306.6	18.9	59.0			QL=6 ST=3 TYP=4
	606	MANI	4 S/F	0523.3	0529.1	8.2D	20.0			QL=6 ST=2 TYP=3
	410	LEAR	4 S/F	0524.3	0525.6	5.8D	220.0			QL=6 ST=2 TYP=3
	8800	MANI	4 S/F	0524.8	0529.3	7.8	100.0			QL=6 ST=2 TYP=4
	4995	MANI	4 S/F	0524.8	0529.6	7.8D	59.0			QL=6 ST=2 TYP=4
	606	LEAR	4 S/F	0525.1	0529.3	6.4D	30.0			QL=6 ST=2 TYP=3
	1415	LEAR	4 S/F	0525.1	0529.3	7.0D	18.0			QL=6 ST=2 TYP=3
	4995	LEAR	4 S/F	0525.1	0529.8	6.7D	47.0			QL=6 ST=2 TYP=3
	1415	MANI	4 S/F	0525.3	0529.1	8.0D	38.0			QL=6 ST=2 TYP=3
	8800	LEAR	4 S/F	0525.3	0529.3	5.5	35.0			QL=6 ST=2 TYP=3
	2695	LEAR	4 S/F	0525.3	0529.3	6.8D	40.0			QL=6 ST=2 TYP=3
	2695	MANI	4 S/F	0525.6	0529.3	5.9D	41.0			QL=6 ST=2 TYP=4
	1415	ATHN	4 S/F	0528.5	0529.5	2.5D	18.0			QL=5 ST=2 TYP=3
	2695	ATHN	4 S/F	0528.5	0529.6	6.6	33.0			QL=5 ST=2 TYP=3
	8800	ATHN	4 S/F	0528.6	0529.5	4.9	23.0			QL=2 ST=2 TYP=3
	2695	SGMR	8 S	1219.0	1219.6	2.0D	27.0			QL=6 ST=2 TYP=3
	4995	SGMR	8 S	1219.3	1219.8	1.3D	32.0			QL=6 ST=2 TYP=3
	8800	SGMR	8 S	1219.3	1219.8	1.3D	19.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	1219.6	1219.6	.9	130.0			QL=6 ST=2 TYP=3
09	410	SGMR	43 NS	1016.0	1512.8	778.0D	39.0			QL=6 ST=2 TYP=1
	245	SGMR	43 NS	1016.0	1914.3	778.0D	340.0			QL=6 ST=2 TYP=1
	245	PALE	43 NS	1641.0	0117.0	714.0D	540.0			QL=6 ST=2 TYP=1
	410	PALE	43 NS	1641.0	2315.1	714.0D	210.0			QL=6 ST=2 TYP=1
	15400	LEAR	8 S	0316.5	0316.8	1.1	73.0			QL=6 ST=2 TYP=3
	4995	MANI	4 S/F	0515.6	0516.8	3.0D	139.0			QL=6 ST=2 TYP=3
	8800	MANI	4 S/F	0515.6	0516.8	3.0	200.0			QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0516.0	0516.6	2.0D	200.0			QL=6 ST=3 TYP=3
	4995	LEAR	8 S	0516.1	0516.8	1.5D	100.0			QL=6 ST=3 TYP=3
	8800	ATHN	4 S/F	0516.1	0517.0	4.9	119.0			QL=2 ST=2 TYP=3

SOLAR RADIO EMISSION
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APRIL 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
09	2695	LEAR	8	S	0516.3	0516.6	.8D	8.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0516.5	0516.8	1.1	73.0			QL=6 ST=3 TYP=3
	2695	ATHN	8	S	0516.6	0516.8	.7	3.0			QL=5 ST=2 TYP=4
10	410	SGMR	43	NS	1014.0						QL=6 ST=3 TYP=1
	245	SGMR	44	NS	1014.0E	1150.0	96.0D	86.0			QL=6 ST=3 TYP=1
	245	PALE	43	NS	1641.0	2027.1	716.0D	530.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1641.0	2038.1	716.0D	1900.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2251.0	0454.1	666.0D	560.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2251.0	0517.5	666.0D	110.0			QL=6 ST=2 TYP=1
	8800	LEAR	4	S/F	0124.5	0125.3	3.0D	39.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0124.6	0125.8	3.2	9.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0237.3	0238.3	1407.2D	27.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0237.5	0248.6	24.3D	13.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0237.6	0238.1	32.7D	45.0			QL=6 ST=3 TYP=3
	8800	MANI	8	S	0237.6	0238.3	1.7	41.0			QL=6 ST=2 TYP=4
	4995	LEAR	4	S/F	0237.6	0238.3	32.4D	30.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0246.0	0251.3	18.6	24.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	0251.0E	0251.1	1.1D	13000.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0251.0	0251.3	1.1D	58.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0251.1	0251.1	1.5D	15000.0			QL=6 ST=3 TYP=5
	1415	LEAR	4	S/F	0251.1	0251.8	15.0D	21.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0251.1	0253.0	11.4D	11.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0916.6	0918.6	14.4D	150.0			QL=5 ST=3 TYP=3
	2695	LEAR	4	S/F	0917.0	0918.6	8.3D	60.0			QL=5 ST=3 TYP=3
	8800	LEAR	47	GB	0917.0	0920.8	9.6D	180.0			QL=5 ST=3 TYP=5
	8800	MANI	47	GB	0917.0	0921.0	7.6	190.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0917.5	0918.6	6.0D	60.0			QL=2 ST=2 TYP=4
	8800	ATHN	4	S/F	0917.6	0920.8	7.0	119.0			QL=2 ST=2 TYP=4
	15400	LEAR	4	S/F	0917.8	0920.8	6.8	77.0			QL=5 ST=3 TYP=3
	15400	PALE	4	S/F	1721.5	1724.5	18.3D	290.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1721.8E	1724.1	3.3D	240.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1722.0	1724.3	17.8D	250.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1722.0	1724.5	12.0D	190.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1722.0	1724.6	11.3D	26.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1722.1	1724.5	11.4D	119.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1722.6	1724.6	17.2	37.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1722.8	1724.5	17.0D	70.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1723.8	1724.1	1.2D	36.0			QL=6 ST=2 TYP=3
11	245	SGMR	43	NS	1013.0	1300.8	783.0D	490.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1013.0	1902.0	783.0D	47.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1642.0	0118.8	728.0D	11.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1642.0	2304.1	728.0	290.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0655.0	0655.3	1.6D	240.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0655.0	0655.3	1.3	95.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0655.0	0655.3	1.6D	130.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1348.6	1349.6	3.2	11.0			QL=5 ST=2 TYP=3
	4995	PALE	4	S/F	1725.1	1725.8	2.9D	38.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1725.3	1726.0	3.0D	85.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	1725.3	1726.1	1.7	34.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	1726.3	1727.1	2.2D	53.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1821.0	1821.3	1.3D	32.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1821.0	1821.6	2.1D	42.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1821.0	1821.8	7.0	24.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	1821.0	1822.0	2.0D	11.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1821.3E	1821.8	1.2D	860.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1821.8	1822.1	1.0	990.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1851.3E	1851.8	1.2D	860.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	2139.0	2142.8	6.0	190.0			QL=6 ST=2 TYP=5
	8800	PALE	4	S/F	2307.6	2310.8	12.2	56.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2316.0	2316.3	1.3	370.0			QL=6 ST=2 TYP=3
12	245	SGMR	43	NS	1011.0	1925.1	786.0D	3300.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1642.0	0421.3	728.0D	270.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1642.0	2130.3	728.0	740.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2251.0	0127.5	666.0D	350.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2251.0	0323.5	666.0D	430.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	2252.0	0453.3	664.0D	73.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0342.3	0342.3	.8	67.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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APRIL 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
12	410	LEAR	8	S	0518.1	0518.3	1.4	110.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0547.5	0556.0	15.5D	70.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0547.5	0559.0	16.1	74.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0552.3	0555.8	7.0D	11.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0554.0	0555.6	6.1D	53.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0554.0	0558.1	6.3D	57.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0554.0	0558.3	9.8	56.0			QL=2 ST=2 TYP=4
	2695	ATHN	4	S/F	0554.6	0556.1	4.5	6.0			QL=5 ST=2 TYP=4
	15400	LEAR	4	S/F	0557.8	0558.1	2.3	33.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0629.8	0638.0	21.8	33.0			QL=2 ST=2 TYP=4
	1415	ATHN	4	S/F	0630.8	0637.6	10.8D	11.0			QL=5 ST=2 TYP=4
	2695	ATHN	4	S/F	0632.6	0638.3	12.7	6.0			QL=5 ST=2 TYP=4
	8800	LEAR	8	S	0845.8	0846.1	1.3	27.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0845.8	0846.1	2.3D	15.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0845.8	0846.8	1.5D	8.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0845.8	0846.8	2.2D	76.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2036.0E	2045.0	24.0D	520.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	2037.6	2047.5	15.4D	170.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2038.5	2039.1	13.1D	42.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2038.8	2039.3	14.2	40.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2038.8	2042.8	13.0	24.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2039.0	2047.3	18.0D	240.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2040.1	2048.1	12.5D	19.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2040.3	2047.3	15.8D	260.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2042.1	2047.1	12.5D	170.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2043.3	2049.3	13.7D	25.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	2043.6	2047.0	10.4D	119.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2225.0	2227.1	10.3D	220.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2226.0	2227.1	6.0D	63.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2226.0	2227.3	6.5D	100.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2226.0	2228.1	7.0	75.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	2226.1	2226.1	3.2D	2400.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2226.3	2226.3	3.2	720.0			QL=6 ST=2 TYP=5
	1415	PALE	4	S/F	2226.3	2228.0	15.7D	150.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	2300.1	2300.5	4.0D	40.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	2300.1	2302.1	2.5D	75.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	2300.3	2302.3	3.0D	190.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	2302.1	2302.6	1.0D	21.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	2302.1	2302.6	1.0D	70.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	2302.1	2302.8	1.0D	35.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	2302.5	2302.6	.3	48.0			QL=6 ST=2 TYP=3
13	606	MANI	43	NS	0825.1	0828.8	19.9D	93.0			QL=6 ST=2 TYP=1
	1415	MANI	43	NS	0830.6	0835.5	13.7	51.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1010.0	1416.0	789.0D	190.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1010.0	1621.1	789.0D	77.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	1706.3	718.0D	220.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1645.0	1850.1	718.0D	380.0			QL=6 ST=2 TYP=1
	8800	PALE	4	S/F	0229.8	0231.1	3.0	100.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	0230.0	0231.0	7.3	110.0			QL=6 ST=2 TYP=3
	606	MANI	47	GB	0230.0	0231.0	6.0D	72.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0230.1	0230.8	4.5	710.0			QL=6 ST=2 TYP=5
	8800	MANI	4	S/F	0230.3	0231.1	2.5	77.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0230.3	0231.1	3.8D	47.0			QL=6 ST=2 TYP=4
	410	LEAR	47	GB	0230.5	0230.8	1.5D	640.0			QL=6 ST=3 TYP=5
	2695	MANI	4	S/F	0230.5	0231.1	2.6D	28.0			QL=6 ST=2 TYP=4
	8800	LEAR	8	S	0230.5	0231.1	1.8D	78.0			QL=6 ST=3 TYP=3
	4995	LEAR	8	S	0230.5	0231.1	2.0D	49.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0230.5	0231.1	1.8D	24.0			QL=6 ST=3 TYP=3
	1415	MANI	4	S/F	0230.5	0231.1	2.5D	10.0			QL=6 ST=2 TYP=4
	606	LEAR	8	S	0230.6	0231.1	1.7D	150.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0230.8	0231.1	.7	28.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0230.8	0231.1	1.2D	11.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0253.0	0253.1	.8	290.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0403.3	0405.3	4.7D	64.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0403.3	0405.3	4.7D	62.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0404.5	0405.3	2.8	61.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0822.5	0829.3	16.3D	330.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0823.5	0830.1	8.5D	150.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0827.8	0835.3	11.0	25.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
13	1415	LEAR	4	S/F	0829.1	0831.8	3.7D	34.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0834.3	0838.1	7.5	23.0			QL=2 ST=2 TYP=3
	410	LEAR	4	S/F	0858.6	0901.3	10.0D	210.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	0900.6	0904.6	14.9	110.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0901.0	0904.1	7.0D	110.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0903.0	0903.8	2.3D	39.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0903.0	0904.1	3.0D	44.0			QL=6 ST=2 TYP=3
	1415	ATHN	8	S	0903.0	0904.3	2.0	33.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0903.1	0904.1	2.9D	110.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0903.5	0904.0	2.5	119.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0903.5	0904.5	2.6D	64.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0903.8	0904.1	1.0	80.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0903.8	0904.5	2.2	51.0			QL=2 ST=2 TYP=3
	245	SGMR	47	GB	1024.0	1024.6	1.0	730.0			QL=4 ST=2 TYP=5
	245	SGMR	47	GB	1229.6	1230.0	1.5	2200.0			QL=6 ST=2 TYP=5
	1415	ATHN	8	S	1229.6	1230.1	1.0D	34.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	1229.6	1230.1	1413.9	16.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	1229.8	1230.1	.5	21.0			QL=2 ST=2 TYP=3
	606	SGMR	8	S	1239.5	1240.1	1.5D	69.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1239.8	1240.3	1.0	65.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1240.1	1240.3	.7D	22.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	2133.6	2133.8	.4	780.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	2258.1	2259.3	4.9	88.0			QL=6 ST=2 TYP=3
14	410	SGMR	43	NS	1008.0	1031.8	792.0D	100.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1008.0	2123.8	792.0D	190.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	2124.8	718.0D	230.0			QL=6 ST=2 TYP=1
	8800	PALE	47	GB	0144.1	0145.5	2.0	810.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0408.6	0412.6	7.4	119.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0411.8	0415.3	5.5D	139.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1151.8	1153.5	2.5D	13.0			QL=6 ST=3 TYP=3
	606	SGMR	8	S	1152.3	1153.5	2.0	73.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1215.8	1216.0	3.0D	98.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1217.0	1218.0	1.8D	160.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1217.5	1217.8	1.3	28.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2003.6	2005.5	6.5	100.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2003.8	2005.3	3.5D	87.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2003.8	2005.3	5.2D	98.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2004.0	2005.3	3.3D	32.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2004.3	2005.3	2.5D	34.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2004.6	2005.3	1.7	100.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2004.6	2005.3	2.0D	50.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2004.8	2005.3	3.3	110.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2004.8	2005.3	7.7	130.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2005.0	2005.6	1.1D	47.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2005.1	2006.3	5.4	70.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2136.0	2137.0	2.1	139.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2136.1	2136.8	4.0D	50.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2136.3	2136.8	3.0D	36.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2137.3	2138.1	1.8	110.0			QL=6 ST=2 TYP=3
15	410	LEAR	43	NS	0320.0	0736.6	394.0D	5.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0320.0	0933.0	394.0D	370.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1006.0	1410.8	795.0D	00.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1643.0	0100.5	720.0D	1199.0			QL=1 ST=2 TYP=1
	245	PALE	47	GB	0203.1	0205.5	8.9	970.0			QL=6 ST=2 TYP=5
	1415	LEAR	8	S	0204.3	0204.8		17.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0204.3	0204.8		19.0			QL=6 ST=3 TYP=3
	1415	MANI	4	S/F	0204.6	0206.0	4.9D	20.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	0204.6	0206.8	2.9D	13.0			QL=6 ST=2 TYP=4
	4995	LEAR	8	S	0204.8	0204.8		37.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	0204.8	0205.8		2.0			QL=6 ST=3 TYP=3
	2695	MANI	8	S	0205.0	0206.0	2.0D	13.0			QL=6 ST=2 TYP=4
	4995	MANI	8	S	0205.0	0206.0	2.0	3600.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0546.1	0550.6	8.0D	19.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0546.5	0548.8	10.5D	56.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0547.0	0548.8	10.1D	11.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0547.0	0549.1	4.0D	24.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0547.1	0548.8	11.0D	33.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0547.5	0548.8	2.5D	68.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
15	8800	MANI	4	S/F	0547.5	0549.0	2.5	27.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0547.5	0550.6	6.8D	190.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0547.6	0548.8	3.4D	86.0			QL=6 ST=2 TYP=3
	606	MANI	47	GB	0548.0	0549.1	6.0D	47.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0548.0	0549.1	7.1D	130.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0548.1	0548.6	9.2D	33.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0548.3	0548.8	.8	11.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1404.3	1404.5	.7	67.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1508.3	1511.5	11.5	150.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1508.6	1510.0	6.0D	190.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1508.6	1511.3	5.7D	110.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1508.8	1510.0	5.5D	270.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1508.8	1510.3	5.0D	110.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1508.8	1511.3	4.5D	84.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1509.0	1511.3	5.1	97.0			QL=2 ST=2 TYP=3
	15400	SGMR	8	S	1509.8	1511.0	1.8	100.0			QL=6 ST=2 TYP=3
16	245	LEAR	43	NS	2254.0	0321.3	658.0D	77.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0037.6	0039.3	3.0D	730.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0038.3	0039.5	1.7	20.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0038.6	0039.3	1.5D	19.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0103.0	0103.8	2.1	37.0			QL=6 ST=2 TYP=4
	410	SGMR	8	S	1531.6	1532.0	1.5	84.0			QL=6 ST=2 TYP=3
17	245	LEAR	47	GB	0120.6	0124.1	6.5D	640.0			QL=6 ST=3 TYP=5
	410	LEAR	4	S/F	0121.0	0124.8	8.5D	91.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0124.6	0125.0	1.4	86.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0749.1	0752.8	4.0D	6.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0749.6	0752.8	3.5D	35.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0750.8	0752.8	4.3	27.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1644.6	1644.8	.5	59.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2052.8	2054.8	2.8	15.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2053.0	2054.8	3.3D	41.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2053.0	2054.8	3.3D	119.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2212.8	2213.1	.7D	43.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2212.8	2213.1	.7	75.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2253.0	2254.0	1.6	67.0			QL=6 ST=2 TYP=3
18	245	SGMR	43	NS	1002.0	1216.5	802.0D	99.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1639.0	1709.8	719.0D	130.0			QL=1 ST=2 TYP=1
	245	LEAR	43	NS	2253.0	0639.1	658.0D	57.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0552.1	0552.1	1.0	100.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0803.6	0809.6	9.9D	100.0			QL=6 ST=2 TYP=5
	1415	ATHN	8	S	0808.8	0809.0	2.0D	37.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	0808.8	0809.0	.7	11.0			QL=2 ST=2 TYP=3
	2695	ATHN	4	S/F	0808.8	0809.1	3.7	63.0			QL=5 ST=2 TYP=3
	1415	LEAR	4	S/F	0809.1	0809.3	5.5D	52.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0809.1	0809.5	3.9	39.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0809.1	0809.5	4.0D	78.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0809.3	0810.3	2.0D	65.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0809.6	0809.8	3.4	44.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0809.6	0809.8	3.4D	77.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1708.3	1708.5	1.2	130.0			QL=1 ST=3 TYP=3
	245	SGMR	8	S	1708.3	1708.6	1.3	86.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1713.3	1713.3	.8	100.0			QL=1 ST=2 TYP=3
	245	LEAR	8	S	2353.0E	2353.8	1.3D	59.0			QL=5 ST=2 TYP=3
19	245	SGMR	43	NS	1000.0	1450.8	805.0D	77.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2254.0	0902.1	656.0D	100.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2254.0	2306.5	386.0	15.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0341.1	0346.3		1000.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0344.1	0344.3	3.5D	139.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0345.6	0346.3	1.2	11.0			QL=6 ST=2 TYP=3
20	245	LEAR	43	NS	0230.0	0141.0	440.0D	64.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0230.0	0251.8	440.0D	13.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	2213.6	715.0D	230.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	2157.6	2217.0	88.4D	84.0			QL=6 ST=2 TYP=1
	4995	LEAR	4	S/F	0639.0	0643.5	6.6	16.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0639.1	0643.3	5.9D	23.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	1415	LEAR	4	S/F	0639.8	0644.1	4.8D	54.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1714.0	1714.8	1.1	83.0			QL=6 ST=2 TYP=3
21	245	SGMR	43	NS	0957.0	1949.3	811.0D	100.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2256.0	0641.3	652.0D	20.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2256.0	2318.3	652.0D	59.0			QL=6 ST=2 TYP=1
22	245	SGMR	43	NS	0955.0	1555.3	814.0D	180.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0955.0	1555.3	814.0D	80.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1642.0	0438.5	723.0D	230.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2255.0	0559.0	652.0D	37.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2255.0	0612.0	652.0D	220.0			QL=6 ST=2 TYP=1
23	410	SGMR	43	NS	0954.1	2054.1	815.9D	24.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1400.0	1832.8	570.0D	27.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1638.0	1645.6	725.0D	670.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2256.0	0721.8	650.0D	170.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2345.0	0802.8	601.0D	27.0			QL=6 ST=2 TYP=1
24	245	SGMR	43	NS	0952.0	1938.0	819.0D	67.0			QL=6 ST=2 TYP=1
	410	LEAR	47	GB	0556.6	0557.1	2.7D	900.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0557.0	0557.6	2.6D	11.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0557.0	0557.8	2.1D	23.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0557.1	0557.6	2.4	26.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0557.1	0557.6	2.5D	33.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0557.1	0558.1	2.4D	19.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	0557.5	0558.0	1.8	30.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	0557.5	0558.0	1.8D	23.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0557.5	0559.3	3.1D	93.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	0557.8	0558.1	1.8	24.0			QL=2 ST=2 TYP=4
	2695	ATHN	8	S	0557.8	0558.3	2.0	13.0			QL=6 ST=2 TYP=4
	4995	LEAR	8	S	0830.0	0831.1	1.8	19.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0830.3	0830.6	3.5D	850.0			QL=6 ST=2 TYP=5
	2695	LEAR	8	S	0830.5	0831.0	1.6D	17.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0830.5	0831.1	1.5D	15.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0830.6	0831.0	1.7D	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0930.0	0931.1	1.8	19.0			QL=6 ST=3 TYP=3
	410	LEAR	47	GB	0930.3	0930.6	3.5D	850.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0930.3	0930.8	3.7D	930.0			QL=6 ST=3 TYP=5
	2695	LEAR	8	S	0930.5	0931.0	1.6D	17.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0930.5	0931.1	1.5D	15.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0930.6	0931.0	1.7D	13.0			QL=6 ST=3 TYP=3
25	410	SGMR	43	NS	0951.0	1857.5	821.0D	139.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0951.0	1930.8	821.0D	139.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1639.0	2316.3	719.0D	1500.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1940.0	2259.6	543.0D	160.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2257.0	0558.1	648.0D	240.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2257.0	0608.3	648.0D	110.0			QL=6 ST=2 TYP=1
	410	PALE	8	S	1857.0	1857.1	.6	160.0			QL=6 ST=2 TYP=3
26	606	SGMR	43	NS	0949.0	1309.0	824.0D	45.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0949.0	1614.3	824.0D	119.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0949.0	2136.8	824.0D	110.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1635.0	0259.5	729.0D	139.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2257.0	0444.3	647.0D	52.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2257.0	0928.0	647.0D	240.0			QL=6 ST=2 TYP=1
	606	PALE	4	S/F	2029.5	2031.5	3.1	170.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2029.6	2031.6	3.0D	95.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2031.0	2032.1	6.0D	41.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2031.0	2032.1	4.8D	150.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2031.0	2032.1	4.0D	190.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	2031.1	2031.3	2.5	110.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2031.1	2032.1	7.7D	150.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2031.1	2032.1	4.5D	200.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2031.1	2032.1	3.4D	190.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2031.1	2032.3	4.9D	119.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2031.1	2032.3	3.4D	42.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2031.6	2031.8	1.9D	139.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2031.6	2032.3	1.4	44.0			QL=5 ST=3 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
26	245	PALE	8	S	2034.0E	2034.3	.8D	22.0			QL=5 ST=2 TYP=3
	606	SGMR	8	S	2254.6	2255.0	1.0D	61.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2254.6	2255.0	1.0	61.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2254.8	2255.3	.7D	110.0			QL=6 ST=2 TYP=3
27	245	LEAR	43	NS	2258.0	0041.6	646.0D	110.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2258.0	0706.8	646.0D	66.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0025.3	0026.1	1.3D	10.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0025.8	0026.1	1.0D	11.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0025.8	0026.1	1.0D	139.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0025.8	0026.3	1.0D	6.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0025.8	0026.3	1.2D	3.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0025.8	0026.3	.8	11.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0113.0	0113.3	.8	10.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0143.0	0143.3	.8	10.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0224.3	0229.3	10.0D	330.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0225.3	0229.1	8.8D	110.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0227.5	0229.1	5.5	42.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0228.0	0229.6	5.0	139.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0228.0	0229.6	5.0	350.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	0228.0	0231.1	5.0	150.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0228.3	0232.1	5.8D	150.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0251.0	0257.0	11.8D	19.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0251.1	0252.5	8.9D	310.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0251.1	0254.0	3.2D	83.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0251.1	0256.8	11.0D	79.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0251.6	0252.1	8.7D	11.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0251.8	0256.8	8.5D	16.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0254.8	0256.8	6.2	39.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2004.0	2007.0	10.0	119.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	2004.0	2007.0	10.0	130.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2047.3	2048.0	4.0	139.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2048.0	2048.1	1.1D	70.0			QL=6 ST=2 TYP=3
28	245	SGMR	43	NS	0947.0	1135.1	828.0D	200.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0947.0	1308.0	828.0D	910.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1636.0	2154.0	731.0D	230.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2258.0	0312.8	644.0D	83.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2258.0	0629.8	644.0D	92.0			QL=6 ST=2 TYP=1
	606	PALE	8	S	0236.3	0236.8	.8	320.0			QL=5 ST=2 TYP=3
	606	LEAR	8	S	0237.6	0238.0	.7	290.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0238.6	0239.0	.7D	18.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0900.6	0901.3	3.2D	17.0			QL=6 ST=3 TYP=3
	606	LEAR	47	GB	0900.6	0902.1	3.4D	500.0			QL=6 ST=3 TYP=5
	8800	LEAR	4	S/F	0900.6	0902.3	4.0D	34.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0900.6	0902.6	4.4D	27.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0900.6	0902.6	2.7D	18.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0900.8	0902.3	2.0D	110.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0900.8	0902.3	2.8	39.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	0900.8	0902.8	6.2	33.0			QL=2 ST=2 TYP=4
	2695	ATHN	4	S/F	0902.5	0903.1	3.0	15.0			QL=5 ST=2 TYP=4
	1415	ATHN	4	S/F	0902.6	0903.0	3.0D	19.0			QL=5 ST=2 TYP=4
	245	SGMR	47	GB	1202.1	1204.0	4.9	3200.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	1203.5	1204.8	4.6D	160.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	1203.6	1204.1	1.7	190.0			QL=2 ST=2 TYP=3
	2695	ATHN	4	S/F	1203.8	1204.5	2.5	110.0			QL=5 ST=2 TYP=3
	1415	ATHN	4	S/F	1236.8	1238.6	3.5D	87.0			QL=5 ST=2 TYP=4
	2695	ATHN	4	S/F	1236.8	1239.0	3.2	48.0			QL=5 ST=2 TYP=4
	8800	ATHN	4	S/F	1237.0	1237.6	3.1	51.0			QL=2 ST=2 TYP=4
	245	SGMR	47	GB	1243.6	1244.0	2.7	850.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	1244.1	1244.6	2.9D	79.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	1244.3	1244.8	2.5	30.0			QL=5 ST=2 TYP=3
	8800	SGMR	4	S/F	1533.5	1534.3	2.1	16.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1533.5	1534.5	2.0D	8.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1533.8	1534.5	1.5D	3.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1534.5	1534.6	.8D	73.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1707.0	1707.5	1.0	1000.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1707.1	1708.1	1.2	970.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	2038.0	2040.0		40.0			QL=6 ST=3 TYP=3
	410	PALE	47	GB	2038.0	2040.0		1600.0			QL=6 ST=3 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
28	606	PALE	8	S	2038.0	2040.0		130.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	2038.0	2040.0		3700.0			QL=6 ST=3 TYP=5
	4995	PALE	8	S	2039.3	2039.8		170.0			QL=6 ST=3 TYP=3
	15400	PALE	47	GB	2039.3	2040.0		750.0			QL=6 ST=3 TYP=5
	8800	PALE	8	S	2039.3	2040.0		390.0			QL=6 ST=3 TYP=3
	2695	PALE	8	S	2039.3	2040.1		100.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	2039.8	2040.0	1.5	3600.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	2115.3	2115.6	4.7D	940.0			QL=6 ST=2 TYP=5
	410	PALE	4	S/F	2115.3	2116.1	2.7	330.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	2115.5	2116.0	2.0	210.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2115.6E	2116.5	2.0D	230.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2115.6	2116.6	6.0D	90.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	2116.1	2116.3	2.0D	770.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	2313.0	2315.3	2.6D	33.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	2313.3	2314.6	2.5D	65.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	2313.6	2314.0	2.9	400.0			QL=6 ST=3 TYP=3
29	245	SGMR	43	NS	0945.0	1039.8	54.8D	53.0			QL=6 ST=3 TYP=1
	410	SGMR	43	NS	0945.0	1111.1	832.0D	29.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1635.0	2202.6	595.0D	65.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1802.0	0428.6	644.0D	180.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2258.0	0328.6	644.0D	190.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2258.0	0600.0	644.0D	15.0			QL=6 ST=2 TYP=1
	606	PALE	8	S	0048.8	0049.1	.5	360.0			QL=5 ST=2 TYP=3
	606	LEAR	8	S	0049.0	0049.1	.3	490.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0201.5	0203.8	4.8D	35.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0201.6	0203.8	4.0	22.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0201.8	0202.3	2.0D	190.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0201.8	0204.0	5.2D	33.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0302.8	0303.3	2.0D	75.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0302.8	0303.3	1.8	160.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0302.8	0303.5	1.7	960.0			QL=6 ST=2 TYP=5
	606	LEAR	47	GB	0303.0	0303.3	1.0D	980.0			QL=6 ST=2 TYP=5
	4995	LEAR	8	S	0303.1	0303.3	1.7D	17.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0303.1	0303.3	1.2D	13.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0303.3	0303.5	1.5D	6.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1244.6	1307.1	47.2	130.0			QL=2 ST=2 TYP=4
	1415	SGMR	4	S/F	1250.0	1305.8	40.0	150.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1250.5	1305.0	39.5D	150.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1250.8	1305.0	39.2D	250.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1251.8	1305.1	38.2D	88.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1336.0	1410.1	68.8D	62.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1337.3	1404.8	67.0	61.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1340.0	1402.1	48.0	48.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1340.0	1404.6	48.0D	43.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1340.0	1409.1	48.0D	93.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1340.0	1409.3	48.0D	78.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1359.8	1403.1	10.2	20.0			QL=2 ST=2 TYP=4
	410	SGMR	8	S	1427.5	1427.6	1.6D	85.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1427.6	1427.8	2.2	139.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1428.1	1428.3	7.0D	91.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1428.1	1428.3	5.9D	32.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1825.8	1828.6	6.2	180.0			QL=3 ST=2 TYP=3
	1415	SGMR	47	GB	1827.0	1830.5	5.0	520.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	1828.0	1828.6	4.6	220.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	1829.6	1830.6	2.0	460.0			QL=6 ST=2 TYP=5
	8800	PALE	4	S/F	2016.1	2021.0	8.9D	34.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2017.5	2018.3	1.5D	46.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2020.0	2021.1	2.5D	20.0			QL=3 ST=2 TYP=3
	2695	PALE	4	S/F	2020.0	2021.1	3.1	19.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2020.3	2021.1	4.3D	20.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2020.3	2021.1	4.3D	26.0			QL=3 ST=2 TYP=3
	8800	SGMR	4	S/F	2020.3	2021.3	3.3	28.0			QL=3 ST=2 TYP=3
30	245	SGMR	43	NS	0944.0	1132.5	834.0D	200.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1817.6	1818.1	625.4D	340.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2259.0	0023.1	642.0D	290.0			QL=6 ST=2 TYP=1
	606	PALE	4	S/F	0147.8	0149.8	7.7	20.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0148.0	0150.0	4.8D	100.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0148.1	0149.6	2.5D	8.0			QL=6 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
30	4995	LEAR	4	S/F	0148.1	0150.0	5.5D	62.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	0148.1	0150.1	7.4D	61.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0148.1	0150.1	7.4D	41.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0148.1	0150.1	7.4D	43.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0148.3	0150.0	4.3	37.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0148.3	0150.1	4.7D	29.0			QL=6 ST=3 TYP=3
	2695	PALE	4	S/F	0148.3	0150.1	7.2D	32.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0148.3	0150.1	7.2D	72.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0148.6	0149.1	3.5D	28.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0148.6	0150.3	3.9D	9.0			QL=6 ST=3 TYP=3
	2695	LEAR	47	GB	0335.1	0403.3	76.9	170.0			QL=6 ST=2 TYP=5
	4995	LEAR	47	GB	0345.5	0403.1	70.5	150.0			QL=5 ST=2 TYP=5
	1415	PALE	47	GB	0350.5	0403.3	45.3	139.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0358.1	0402.8	20.7D	98.0			QL=5 ST=2 TYP=4
	1415	ATHN	4	S/F	0358.1	0403.5	21.0D	73.0			QL=5 ST=2 TYP=4
	8800	ATHN	4	S/F	0358.1	0405.8	20.5	76.0			QL=5 ST=2 TYP=4
	606	SGMR	4	S/F	1142.1	1142.6	3.0D	28.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1142.8	1143.1	3.3	80.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1530.1	1534.1	5.9	77.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1532.1	1532.6	4.5D	240.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1532.5	1533.0	3.0D	160.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1547.6	1547.8	1.2D	560.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	1548.0	1548.3	1.6D	9.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1548.1	1548.6	2.9	17.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1548.1	1548.8	1.9D	10.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1548.1	1549.0	2.5D	17.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2022.0	2027.8	7.8	54.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2022.1	2022.8	2.2D	18.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2022.3	2022.6	1.7D	16.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2022.3	2023.3	2.5D	17.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2022.3	2023.3	2.7D	18.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2022.3	2023.8	2.3	41.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2022.8	2023.8	2.0D	40.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2023.0	2026.1	7.0D	20.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
01	245	SGMR	43	NS	0942.0	1547.3	837.0D	150.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0942.0	2220.8	837.0D	210.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2259.0	0105.3	642.0D	270.0			QL=6 ST=2 TYP=1
	245	PALE	8	S	0022.6	0023.1	2.0	450.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0022.6	0023.6	1.2D	60.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0211.8	0212.6	2.2	80.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	0330.8	0331.3	1590.8	510.0			QL=6 ST=3 TYP=5
	8800	SGMR	4	S/F	1555.0	1558.1	7.0D	42.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1555.1	1557.8	7.9D	13.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1557.6	1558.3	1.4	32.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1558.1	1558.3	.7D	63.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1621.0	1623.8	15.0	920.0			QL=2 ST=2 TYP=5
	1415	ATHN	4	S/F	1621.1	1624.1	12.0D	89.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	1621.1	1624.1	12.0	240.0			QL=5 ST=2 TYP=3
	4995	PALE	47	GB	1913.8	1916.0	136.2D	1300.0			QL=6 ST=2 TYP=5
	2695	PALE	49	GB	1913.8	1916.1	136.2D	660.0			QL=6 ST=2 TYP=7
	606	PALE	49	GB	1915.3	1915.6	116.7D	11000.0			QL=6 ST=2 TYP=7
	410	PALE	49	GB	1915.3	1916.0	107.7D	18000.0			QL=6 ST=2 TYP=7
	1415	PALE	49	GB	1915.3	2011.0	134.7D	11999.0			QL=6 ST=2 TYP=7
	245	PALE	49	GB	1915.6	1916.0	107.4D	5900.0			QL=6 ST=2 TYP=7
	410	SGMR	47	GB	1915.8	1916.1	81.8D	18000.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	1916.0	1916.3	68.5	7300.0			QL=6 ST=2 TYP=7
	1415	SGMR	47	GB	1938.1	1950.0		2000.0			QL=6 ST=3 TYP=5
	4995	SGMR	8	S	2100.5	2101.3	1.5D	70.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2100.6E	2101.5	1.7D	38.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2100.8	2101.1	1.5	22.0			QL=6 ST=2 TYP=3
02	245	SGMR	43	NS	0941.0	1505.3	839.0D	260.0			QL=6 ST=3 TYP=1
	410	SGMR	43	NS	0941.0	1549.6	839.0D	42.0			QL=6 ST=3 TYP=1
	245	PALE	43	NS	1633.0	1645.0	734.0D	150.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2300.0	0721.8	640.0D	210.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0436.0	0437.1	2.6D	31.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0436.1	0436.5	1.0D	24.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0436.1	0436.6	1.0D	4.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0436.3	0436.5	.8	10.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0436.3	0436.6	.8D	150.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0436.3	0436.6	.8D	7.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0436.5	0436.6	.6D	4.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0553.1	0555.1	3.5D	54.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0553.5	0555.6	3.1	16.0			QL=6 ST=3 TYP=3
	606	LEAR	47	GB	0628.5	0628.6	.6D	600.0			QL=6 ST=2 TYP=5
	1415	LEAR	8	S	0628.6	0628.8	.5D	8.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0628.8	0628.8	.2	23.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2046.6	2047.3	2.4	240.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	2047.0	2047.1	.5	710.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2047.0	2047.1	2.1D	940.0			QL=6 ST=2 TYP=5
03	245	SGMR	43	NS	0940.0	2048.1	841.0D	590.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0940.0	2107.1	841.0D	139.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1334.0	1551.5	607.0D	54.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1632.0	2048.0	733.0D	720.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2300.0	0851.8	640.0D	400.0			QL=6 ST=2 TYP=1
	606	PALE	4	S/F	0204.0	0204.6	3.0	180.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0204.0	0205.1	3.0	75.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0204.0	0205.1	3.0	89.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0204.0	0205.1	3.0	139.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0204.0	0205.3	3.0	66.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0204.0	0205.3	3.0	81.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0204.1	0205.0	8.7D	160.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0204.1	0205.0	7.7D	150.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0204.1	0205.1	7.7D	85.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0204.3	0204.6	4.3D	160.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0204.3	0205.5	11.8D	55.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0204.6	0205.6	7.0	48.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0204.8	0205.3	2.3D	71.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	0205.0	0207.0	3.0D	150.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	0355.1	0355.3	1.2	210.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0355.3	0355.5	1.2D	230.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0355.3	0355.6	4.0	8.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0355.3	0355.6	3.8D	11.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTST NDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
03	245	LEAR	47	GB	0701.1	0701.8	1.2	500.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	0759.1	0800.6	2.5D	119.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0759.1	0800.6	2.5D	210.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0759.6	0800.6	4.0D	92.0			QL=5 ST=2 TYP=3
	410	LEAR	8	S	0800.3	0800.3	.3D	370.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0800.3	0800.5	1.2D	32.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0800.3	0800.5	1.2D	1500.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0800.3	0800.5	.8D	190.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0800.3	0800.6	2.5D	42.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0800.5	0800.6	.3	52.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0800.5	0800.6	2.5D	160.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	0800.5	0800.6	1.5	190.0			QL=5 ST=2 TYP=3
	1415	ATHN	8	S	0800.6	0800.6	1.5D	40.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	1242.3	1309.3	53.3D	119.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1242.3	1310.5	61.8D	200.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1246.6	1309.8	32.5D	88.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1249.5	1309.8	30.5	84.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	1259.0	1345.1	52.0	500.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	1615.5	1622.6	7.3D	61.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1617.3	1620.3	10.2D	100.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1619.3	1619.3	5.2D	11.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1619.3	1620.1	5.2	240.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1619.3	1620.3	5.5D	7.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1619.8	1620.1	.8	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1748.1	1752.1	17.9D	25.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1748.1	1752.1	17.9D	29.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1748.1	1800.1	17.9D	21.0			QL=6 ST=2 TYP=4
	1415	SGMR	4	S/F	1748.8	1751.8	7.2	11.0			QL=6 ST=2 TYP=4
	410	PALE	47	GB	2127.5	2127.6	.8	520.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	2127.6	2127.8	.5	800.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	2356.3	2357.1	2.3D	15.0			QL=5 ST=2 TYP=3
	2695	LEAR	4	S/F	2356.3	2357.6	3.5D	16.0			QL=5 ST=2 TYP=3
	8800	LEAR	8	S	2356.8E	2357.3	1.7D	8.0			QL=5 ST=2 TYP=3
	1415	LEAR	4	S/F	2356.8	2357.6	3.5D	7.0			QL=5 ST=2 TYP=3
04	606	SGMR	43	NS	0938.0	1211.6	844.0D	52.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0938.0	1737.6	844.0D	39.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0938.0	2156.6	844.0D	1199.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2301.0	0628.1	638.0D	119.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2301.0	0653.1	638.0D	1700.0			QL=6 ST=3 TYP=1
	4995	SGMR	4	S/F	1507.1	1509.6	2.9D	7.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1508.1	1508.8	3.2D	13.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1508.1	1509.0	3.5	10.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1508.3	1509.8	1.7D	2.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	1823.8	1827.3	4.3	830.0			QL=6 ST=2 TYP=5
	606	SGMR	47	GB	1823.8	1827.3	7.2	650.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	2014.8	2015.0	.8D	15.0			QL=6 ST=3 TYP=3
	2695	SGMR	8	S	2014.8	2015.1	1.0D	13.0			QL=6 ST=3 TYP=3
	410	SGMR	8	S	2014.8	2015.1	1.2D	160.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	2014.8	2015.1	6.7	780.0			QL=6 ST=3 TYP=5
	1415	SGMR	8	S	2015.0	2015.1	.6D	23.0			QL=6 ST=3 TYP=3
	8800	SGMR	8	S	2015.0	2015.1	1.0D	18.0			QL=6 ST=3 TYP=3
	606	SGMR	8	S	2015.0	2015.3	.6D	32.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	2020.0	2020.1	4.1D	8.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2020.0	2021.8	4.1D	23.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2020.5	2020.8	.5	25.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2020.6	2020.8	.4D	21.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2020.6	2021.0	2.4D	4.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2202.5	2203.5	2.5	750.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2202.8	2203.6	2.7	720.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	2336.3	2337.1	1.5	51.0			QL=5 ST=3 TYP=3
05	606	LEAR	43	NS	0030.0	0338.0	549.0D	38.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0937.0	0957.3	20.3D	310.0			QL=6 ST=3 TYP=1
	410	SGMR	44	NS	0937.0E	1011.0	34.0D	95.0			QL=6 ST=3 TYP=1
	245	PALE	43	NS	1632.0	1653.0	733.0D	550.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1632.0	2156.3	735.0D	2300.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2302.0	0728.3	636.0D	230.0			QL=6 ST=2 TYP=1
	1415	PALE	4	S/F	0407.0	0407.8	2.6D	20.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	0407.3	0408.1	1.8	58.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
05	1415	LEAR	4 S/F	0524.3	0525.6	2.8D	220.0			QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0525.0	0525.3	1.1D	25.0			QL=6 ST=2 TYP=3
	4995	LEAR	4 S/F	0525.0	0525.6	2.1D	6.0			QL=6 ST=2 TYP=3
	15400	LEAR	8 S	0525.1	0525.5	1.0	34.0			QL=6 ST=2 TYP=3
	2695	LEAR	8 S	0525.3	0525.5	.8D	5.0			QL=6 ST=2 TYP=3
	1415	LEAR	4 S/F	0625.1	0630.3	7.2D	210.0			QL=6 ST=3 TYP=3
	2695	LEAR	4 S/F	0627.6	0630.3	5.7D	11.0			QL=6 ST=3 TYP=3
	8800	LEAR	4 S/F	0627.6	0630.3	4.4	16.0			QL=6 ST=3 TYP=3
	1415	LEAR	4 S/F	0628.0	0630.3	4.3D	210.0			QL=6 ST=2 TYP=3
	4995	LEAR	4 S/F	0628.3	0630.3	3.7D	13.0			QL=6 ST=3 TYP=3
	606	LEAR	47 GB	0715.0	0715.3	1.1	1800.0			QL=6 ST=2 TYP=5
	606	SGMR	4 S/F	1427.0	1438.8	24.0D	130.0			QL=6 ST=2 TYP=3
	8800	SGMR	4 S/F	1439.0	1444.3	6.5	25.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1439.0	1444.3	6.1D	28.0			QL=6 ST=2 TYP=3
	4995	SGMR	4 S/F	1439.0	1444.3	6.5D	38.0			QL=6 ST=2 TYP=3
	245	SGMR	4 S/F	1440.1	1441.5	2.4D	440.0			QL=6 ST=2 TYP=3
	1415	ATHN	4 S/F	1443.5	1444.6	2.3D	16.0			QL=5 ST=2 TYP=3
	2695	ATHN	4 S/F	1443.5	1444.6	7.1	28.0			QL=5 ST=2 TYP=3
	245	SGMR	47 GB	1536.0	1537.0	2.8D	760.0			QL=6 ST=2 TYP=5
	8800	SGMR	4 S/F	1536.0	1537.1	3.0	16.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1536.1	1537.1	4.4D	13.0			QL=6 ST=2 TYP=3
	245	PALE	47 GB	1656.3E	1656.6	.7D	840.0			QL=5 ST=2 TYP=5
	410	SGMR	47 GB	1930.8	1931.1	.5D	530.0			QL=6 ST=2 TYP=5
	245	SGMR	8 S	1930.8	1931.1	.7	94.0			QL=6 ST=2 TYP=3
	410	PALE	47 GB	1931.1	1931.3	.5	690.0			QL=5 ST=2 TYP=5
	245	PALE	8 S	1951.3E	1951.6	1.3D	310.0			QL=6 ST=2 TYP=3
	410	PALE	8 S	2007.1	2007.3	.5	139.0			QL=6 ST=2 TYP=3
	245	PALE	4 S/F	2008.3E	2012.5	7.2D	260.0			QL=6 ST=2 TYP=3
	410	PALE	4 S/F	2009.0	2011.8	6.0	16.0			QL=6 ST=2 TYP=3
	606	PALE	4 S/F	2009.5	2012.3	4.6D	19.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	2212.1	2212.8	1.0	220.0			QL=6 ST=2 TYP=3
	245	SGMR	8 S	2212.3	2212.6	.8D	119.0			QL=6 ST=2 TYP=3
06	245	SGMR	44 NS	0936.0E	1040.1	64.1D	73.0			QL=6 ST=3 TYP=1
	745	PALE	43 NS	1631.0	2129.5	735.0D	100.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2302.0	0845.5	636.0D	139.0			QL=6 ST=2 TYP=1
	410	LEAR	8 S	0005.8	0006.0	1.3D	310.0			QL=6 ST=2 TYP=3
	606	LEAR	8 S	0005.8	0006.0	1.3	23.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	1800.0	1809.1	18.0	93.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1807.1	1809.8	4.2D	22.0			QL=6 ST=2 TYP=3
	4995	SGMR	4 S/F	1807.8	1809.8	3.0D	15.0			QL=6 ST=2 TYP=3
	1415	SGMR	4 S/F	1809.1	1809.8	4.9D	32.0			QL=6 ST=2 TYP=3
	245	PALE	4 S/F	1841.8E	1849.1	8.8D	210.0			QL=6 ST=2 TYP=3
	410	PALE	4 S/F	1847.1	1848.8	3.5	32.0			QL=6 ST=2 TYP=3
	245	PALE	47 GB	1928.5E	1930.6	2.8D	620.0			QL=6 ST=2 TYP=5
	245	SGMR	47 GB	1929.0	1930.8	2.3	420.0			QL=6 ST=2 TYP=5
	4995	PALE	8 S	1930.1	1930.3	.4	13.0			QL=6 ST=2 TYP=3
	245	PALE	4 S/F	1953.8E	1955.8	9.2D	24.0			QL=6 ST=2 TYP=3
	606	SGMR	8 S	2111.0	2111.1	2.0	37.0			QL=6 ST=2 TYP=3
	245	PALE	8 S	2123.6E	2123.8	1.2D	370.0			QL=6 ST=3 TYP=3
	410	PALE	8 S	2123.6	2124.1	1.0	139.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	2124.0	2124.1	.5D	60.0			QL=6 ST=3 TYP=3
	245	SGMR	8 S	2124.0	2124.1	.5	360.0			QL=6 ST=3 TYP=3
	410	PALE	4 S/F	2339.6	2340.8	4.0D	34.0			QL=6 ST=3 TYP=3
	245	PALE	4 S/F	2339.6	2341.0	4.0	210.0			QL=6 ST=3 TYP=3
07	410	LEAR	43 NS	0705.0	0851.0	153.0D	15.0			QL=6 ST=2 TYP=1
	245	SGMR	43 NS	0935.0	2242.8	850.0D	48.0			QL=6 ST=2 TYP=1
	410	PALE	43 NS	1633.0	0142.1	735.0D	390.0			QL=6 ST=2 TYP=1
	245	PALE	43 NS	1633.0	2240.1	735.0D	540.0			QL=6 ST=2 TYP=1
	410	LEAR	43 NS	2303.0	0819.1	634.0D	52.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2303.0	0918.1	634.0D	220.0			QL=6 ST=2 TYP=1
	606	PALE	47 GB	0402.1	0405.6		5100.0			QL=6 ST=2 TYP=5
	4995	LEAR	4 S/F	0402.6	0403.6	6.4D	139.0			QL=6 ST=2 TYP=3
	1415	LEAR	4 S/F	0402.6	0403.8	15.0D	260.0			QL=6 ST=2 TYP=3
	15400	LEAR	8 S	0402.8	0403.1	1.7	180.0			QL=6 ST=2 TYP=3
	410	PALE	8 S	0402.8	0403.6		119.0			QL=6 ST=2 TYP=3
	8800	LEAR	4 S/F	0402.8	0403.6	4.7D	200.0			QL=6 ST=2 TYP=3
	2695	LEAR	4 S/F	0402.8	0403.6	12.3D	130.0			QL=6 ST=2 TYP=3
	2695	ATHN	4 S/F	0403.0	0403.6	9.3	110.0			QL=5 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
07	1415	ATHN	4	S/F	0403.0	0403.6	7.3D	270.0			QL=5 ST=2 TYP=3
	606	LEAR	47	GB	0403.0E	0405.8	7.6D	4600.0			QL=5 ST=2 TYP=5
	8800	ATHN	4	S/F	0403.1	0403.5	11.9	170.0			QL=2 ST=2 TYP=3
	606	LEAR	8	S	0439.3	0439.8	1.3	98.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0627.1	0631.1	4.5	99.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0709.3	0710.1	2.2	119.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0736.8	0737.3	2.0	150.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0829.5	0829.8	.8	110.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0856.3	0859.1	3.5	96.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1011.3	1011.8	.8D	52.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1011.8	1011.8	.3D	39.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1011.8	1012.0	.3	370.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1011.8	1012.0	.3D	21.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1119.8	1121.6	6.5D	43.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1119.8	1122.8	7.0D	110.0			QL=6 ST=3 TYP=3
	1415	ATHN	4	S/F	1120.0	1122.6	7.0D	71.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1120.1	1121.6	6.7D	30.0			QL=6 ST=2 TYP=4
	1415	SGMR	4	S/F	1120.1	1122.8	5.0D	95.0			QL=6 ST=3 TYP=3
	606	SGMR	47	GB	1120.1	1126.0	7.2	1100.0			QL=6 ST=3 TYP=5
	4995	SGMR	4	S/F	1120.8	1121.8	5.0D	36.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	1120.8	1122.6	5.7	170.0			QL=6 ST=2 TYP=4
	15400	SGMR	4	S/F	1121.1	1122.6	3.2D	46.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1307.5	1308.8	3.3D	380.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1307.6	1320.3	25.7D	290.0			QL=6 ST=3 TYP=3
	1415	ATHN	47	GB	1307.6	1320.3	21.7D	8000.0			QL=6 ST=3 TYP=5
	1415	SGMR	8	S	1308.1	1309.0	1.5	37.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1313.6	1317.8	14.5	720.0			QL=6 ST=3 TYP=5
	4995	SGMR	4	S/F	1314.0	1317.8	14.0D	290.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1314.3	1320.1	7.7D	280.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1317.1	1317.8	9.9D	440.0			QL=3 ST=3 TYP=3
	15400	SGMR	4	S/F	1317.1	1320.0	5.5	270.0			QL=3 ST=3 TYP=3
	8800	SGMR	4	S/F	1454.0	1456.0	4.0D	85.0			QL=3 ST=2 TYP=3
	2695	ATHN	4	S/F	1454.1	1456.6	8.9D	260.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1454.1	1456.6	8.5D	220.0			QL=3 ST=2 TYP=3
	15400	SGMR	4	S/F	1454.8	1456.0	5.7	49.0			QL=3 ST=2 TYP=3
	1415	ATHN	47	GB	1454.8	1456.1	8.5D	4700.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1454.8	1456.6	6.2D	78.0			QL=3 ST=2 TYP=3
	8800	ATHN	4	S/F	1455.1	1456.1	3.7	139.0			QL=6 ST=2 TYP=3
	1415	SGMR	47	GB	1455.1	1456.1	6.4	5500.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2044.3	2046.5	3.2	630.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2045.1	2046.6	2.4	540.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	2045.3	2046.6	2.2	6000.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	2045.5	2046.6	2.0	810.0			QL=6 ST=2 TYP=5
	15400	PALE	8	S	2045.8	2046.6	1.7	87.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2045.8	2046.6	1.7	65.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2045.8	2046.6	1.7	65.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2045.8	2046.6	1.7	66.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2046.1	2046.8	2.4D	130.0			QL=3 ST=2 TYP=3
	4995	SGMR	8	S	2046.3	2046.8	1.7D	139.0			QL=3 ST=2 TYP=3
	8800	SGMR	8	S	2046.3	2046.8	1.8	150.0			QL=3 ST=2 TYP=3
	245	SGMR	47	GB	2046.5	2047.0	1.1	860.0			QL=6 ST=2 TYP=5
	4995	PALE	4	S/F	2322.0	2323.0	5.0D	36.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2322.0	2323.0	5.0	5.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2322.1	2323.1	4.7D	19.0			QL=6 ST=2 TYP=3
08	245	PALE	43	NS	1632.0	0204.3	737.0D	46.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2302.0	0204.3	634.0D	42.0			QL=6 ST=3 TYP=1
	8800	LEAR	4	S/F	0056.3	0057.1	5.3D	290.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0056.3	0057.1	2.5	150.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0056.3	0057.3	8.0D	170.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0056.3	0057.8	8.0D	350.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	0056.3	0059.0	6.8	19000.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0056.5	0057.3	5.5D	240.0			QL=6 ST=3 TYP=3
	606	LEAR	47	GB	0056.5	0057.6	18.5D	22000.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0056.5	0059.0	7.6D	19000.0			QL=6 ST=3 TYP=5
	410	LEAR	47	GB	0056.5	0059.1	6.8D	7700.0			QL=6 ST=3 TYP=5
	606	PALE	4	S/F	0127.0	0130.6	19.0	29.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	0419.6	0419.8	.5	840.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0753.8	0754.3	1.3	77.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0758.0	0759.1	2.6	92.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
08	606	LEAR	8	S	0813.6	0814.0	.7	190.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0819.1	0819.3	1.5	250.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1122.8	1127.1	8.2	100.0			QL=3 ST=2 TYP=3
	15400	SGMR	4	S/F	1125.0	1128.3	6.5D	35.0			QL=3 ST=2 TYP=3
	2695	SGMR	4	S/F	1126.3	1127.1	5.7	62.0			QL=3 ST=2 TYP=3
	245	SGMR	47	GB	1126.5	1126.8	4.1	1199.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1126.5	1127.0	5.1D	78.0			QL=3 ST=2 TYP=3
	2695	ATHN	4	S/F	1126.6	1127.1	5.7D	54.0			QL=3 ST=2 TYP=3
	8800	SGMR	4	S/F	1126.6	1127.1	4.9D	46.0			QL=3 ST=2 TYP=3
	1415	ATHN	4	S/F	1126.6	1127.1	6.0D	60.0			QL=3 ST=2 TYP=3
	1415	SGMR	4	S/F	1339.8	1343.3	5.8	29.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1339.8	1344.3	7.7D	55.0			QL=3 ST=2 TYP=3
	606	SGMR	4	S/F	1340.1	1341.1	3.9D	110.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1340.1	1344.1	8.7D	45.0			QL=3 ST=2 TYP=3
	8800	SGMR	4	S/F	1340.3	1344.3	6.8D	32.0			QL=3 ST=2 TYP=3
	15400	SGMR	4	S/F	1340.8	1344.5	7.2	69.0			QL=3 ST=2 TYP=3
	8800	PALE	47	GB	1909.6	1909.8	.5	119.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1935.5	1937.1	3.6D	66.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1936.0	1937.1	3.1D	51.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1936.0	1937.3	3.1	68.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1936.1	1937.3	3.2D	43.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1936.6	1937.1	1.0	54.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1936.8	1937.1	.5	55.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	1936.8	1937.3	.8	34.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	1936.8	1937.3	.8	39.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1937.0	1937.3	2.0D	57.0			QL=6 ST=2 TYP=3
09	245	SGMR	43	NS	0932.0	1935.1	856.0D	210.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1630.0	1849.3	730.0D	690.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1849.0	2147.0	178.1D	58.0			QL=6 ST=2 TYP=1
	245	LEAR	44	NS	2303.0E	0218.5	632.0D	91.0			QL=6 ST=3 TYP=1
	8800	ATHN	4	S/F	0710.6	0712.5	28.7	350.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0711.0	0712.5	6.8D	370.0			QL=6 ST=3 TYP=3
	1415	LEAR	47	GB	0711.0	0713.1	11.8D	110.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	0711.1	0712.5	6.7D	290.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0711.1	0712.6	6.5	280.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0711.8	0712.6	6.7D	210.0			QL=6 ST=3 TYP=3
	2695	ATHN	4	S/F	0712.0	0712.3	26.8D	250.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0712.0	0712.3	26.5D	100.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0712.1	0714.1	3.0D	840.0			QL=6 ST=3 TYP=5
	606	LEAR	4	S/F	0712.1	0714.1	4.0D	260.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1520.3	1523.8	6.7D	15.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1521.0	1523.3	5.1	28.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1849.1	1849.5	.7D	13.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1849.1	1849.5	.9	450.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1849.1	1849.5	.7D	11.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2110.0	2110.8	4.0	37.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2110.8	2111.1	5.2	180.0			QL=6 ST=2 TYP=5
10	245	SGMR	43	NS	0931.0	1303.3	858.0D	190.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1631.0	0008.6	743.0D	190.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1631.0	0026.0	743.0D	34.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2303.0	0008.5	632.0D	130.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2303.0	0032.3	632.0D	33.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0054.3	0054.6	.5	25.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0054.5	0054.6	.3D	10.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0054.5	0054.6	.1D	13.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0154.3	0154.6	.5	25.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0154.5	0154.6	.1D	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0154.5	0154.6	.3D	10.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0331.0	0332.1	1.8D	32.0			QL=5 ST=2 TYP=3
	2695	LEAR	4	S/F	0331.1	0332.1	6.9D	33.0			QL=6 ST=3 TYP=3
	8800	PALE	8	S	0331.1	0332.1	1.5D	27.0			QL=5 ST=2 TYP=3
	4995	LEAR	4	S/F	0331.1	0332.1	6.0D	33.0			QL=6 ST=3 TYP=3
	2695	PALE	8	S	0331.3	0332.1	1.3D	31.0			QL=5 ST=2 TYP=3
	1415	PALE	4	S/F	0331.3	0332.1	2.5D	19.0			QL=5 ST=2 TYP=3
	8800	LEAR	4	S/F	0331.8	0332.1	3.0	29.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0331.8	0332.1	1.8D	89.0			QL=6 ST=3 TYP=3
	606	PALE	8	S	0331.8	0332.1	.8	75.0			QL=5 ST=2 TYP=3
	1415	LEAR	4	S/F	0331.8	0332.1	5.2D	18.0			QL=6 ST=3 TYP=4

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
10	245	PALE	47	GB	0454.1	1949.5	897.5	11.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0518.3	0519.3	1.2	190.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0828.1	0830.3	5.7	250.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	0956.6	0957.1	1.2D	280.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	0957.1	0957.5	1.0	27.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1129.6	1130.1	10.5D	19.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1129.6	1133.1	6.4D	45.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1130.0	1131.0	4.5D	61.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1130.0	1131.1	5.3D	200.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1130.0	1132.6	5.8D	170.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1130.0	1132.8	6.0	36.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1130.0	1133.1	4.1D	34.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1130.0	1133.1	5.8D	73.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1130.0	1133.5	5.8D	35.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1130.1	1133.1	5.0D	55.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1130.1	1133.3	5.9	72.0			QL=6 ST=3 TYP=3
	8800	SGMR	8	S	1240.8	1240.8	.8	490.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1744.6	1745.3	2.2	790.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1745.0	1745.3	.8	490.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1755.3	1757.6	6.5	600.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1756.3	1757.3	2.5D	1199.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1756.5	1757.8	3.1	360.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1949.5	1951.6	12.3	180.0			QL=6 ST=3 TYP=3
	15400	PALE	4	S/F	1950.1	1952.1	11.7D	130.0			QL=6 ST=3 TYP=3
	2695	PALE	4	S/F	1950.1	1952.1	11.7D	61.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	1950.1	1952.1	11.7D	100.0			QL=6 ST=3 TYP=3
	8800	PALE	4	S/F	1950.1	1952.1	11.7D	290.0			QL=6 ST=3 TYP=3
	1415	PALE	4	S/F	1950.1	1952.3	11.7D	21.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1950.6	1952.6	5.2	32.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	1950.8	1953.5	11.0D	610.0			QL=6 ST=3 TYP=5
	606	PALE	47	GB	2021.1	2023.6	3.2	870.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	2021.3	2022.8	2.5	490.0			QL=6 ST=2 TYP=3
	1415	SGMR	47	GB	2022.0	2022.3	1.8	21.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2023.5	2023.6	.3	160.0			QL=6 ST=2 TYP=5
11	245	PALE	43	NS	1630.0	1715.0	735.0D	250.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0025.8	0026.0	.5	139.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0025.8	0026.1	.8D	65.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0047.5	0047.6	3.3D	30.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0047.5	0047.6	.3D	13.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0048.3	0048.5	.3	16.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0102.0	0102.6	.8D	23.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0102.1	0102.5	1.0D	150.0			QL=6 ST=3 TYP=3
	606	PALE	47	GB	0102.3	0102.3	.8	560.0			QL=6 ST=2 TYP=5
	606	LEAR	47	GB	0102.3	0102.5	1.7	1000.0			QL=6 ST=3 TYP=5
	245	PALE	8	S	0102.3E	0102.6	1.3D	19.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0102.3	0102.6	1.2D	220.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0115.1	0115.3	1.9D	92.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0115.1	0115.3	1.5D	41.0			QL=5 ST=2 TYP=3
	1415	PALE	4	S/F	0115.1	0115.5	2.0D	6.0			QL=5 ST=2 TYP=3
	606	PALE	4	S/F	0115.1	0116.8	2.2	160.0			QL=5 ST=2 TYP=3
	245	LEAR	8	S	0115.3	0115.5	.7D	29.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0115.3E	0115.5	.5D	21.0			QL=5 ST=2 TYP=3
	606	LEAR	4	S/F	0115.3	0117.0	2.0	300.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0210.3E	0211.0	1.8D	820.0			QL=6 ST=3 TYP=5
	410	PALE	47	GB	0210.5	0210.8	1.3D	47.0			QL=6 ST=3 TYP=5
	606	PALE	8	S	0210.6	0210.8	1.2	27.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0210.6	0211.0	1.7D	710.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0210.8	0210.8	.3D	50.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0210.8	0211.0	.5	50.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0250.5	0252.8	2.5D	19.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0251.0	0251.1	2.3D	75.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0252.0	0252.8	1.1	83.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0313.0E	0313.3	.6D	33.0			QL=5 ST=2 TYP=3
	245	LEAR	8	S	0313.3E	0313.6	.7D	150.0			QL=5 ST=2 TYP=3
	606	PALE	4	S/F	0410.1	0414.0	4.5	27.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0410.3	0411.8	3.8D	119.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0410.5	0411.6	5.8D	130.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0410.6	0412.1	7.9D	86.0			QL=5 ST=2 TYP=3
	2695	PALE	4	S/F	0411.1	0412.1	5.9D	83.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	8800	ATHN	4	S/F	0411.1	0412.1	8.9	100.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	0411.1	0412.1	8.9D	61.0			QL=5 ST=2 TYP=3
	15400	PALE	8	S	0411.3	0411.5	1.8D	139.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0655.1	1656.3	603.2D	25.0			QL=5 ST=3 TYP=4
	606	SGMR	4	S/F	0930.0	1441.8	860.0D	47.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	0930.0	1650.6	860.0D	150.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	0930.0	1725.0	860.0D	310.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1009.8	1010.6	1.2	69.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1010.0	1010.8	1.0D	41.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1049.5	1056.6	8.3	900.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	1244.8	1253.3	10.5D	139.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1245.3	1253.3	10.2D	79.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1249.3	1253.1	5.7	85.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1252.0	1253.1	2.8D	52.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1252.1	1253.1	3.7D	79.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1252.1	1253.1	2.7D	64.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1252.1	1253.3	2.7	60.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1252.8	1252.8	1.2D	16.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1256.0	1256.8	6.6	110.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1256.8	1257.0	1.0D	60.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1314.1E	1315.8	1.7D	740.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1314.1	1315.8	3.7D	740.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1315.0	1316.8	2.8D	40.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1315.8	1316.6	1.3	18.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1344.1	1350.8	7.2D	150.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1344.5	1345.5	6.8D	380.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1344.5	1347.1	7.0D	71.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1344.8	1345.3	3.0D	8.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1345.1	1345.1	3.9D	17.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1345.1	1345.3	3.0	13.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1459.0	1459.1		770.0			QL=6 ST=3 TYP=5
	606	SGMR	47	GB	1512.0	1515.6	12.0D	1399.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	1512.1	1512.3	4.7D	48.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1512.1	1513.0	11.2D	43.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1512.3	1514.8	7.2D	22.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1512.3	1514.8	7.5D	33.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1512.3	1515.0	10.5D	100.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1512.3	1515.1	10.7D	270.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1512.3	1515.1	8.7	350.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1512.3	1515.1	5.3	139.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	1654.6	1655.1	5.5	510.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1654.8E	1656.0	5.2D	1000.0			QL=6 ST=2 TYP=5
	100	ATHN	47	GB	1655.1	1656.1	4.2	180.0			QL=5 ST=2 TYP=5
	245	SGMR	47	GB	1655.3	1656.1	5.2	1199.0			QL=6 ST=2 TYP=5
	606	PALE	4	S/F	1809.3	1811.6	4.0D	70.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1809.5	1811.8	3.8	139.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	1851.8	1853.8	67.8D	9.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	1852.0E	1852.8	3.0D	920.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1852.1	1852.8	2.0	710.0			QL=6 ST=2 TYP=5
	606	PALE	4	S/F	1852.1	1853.5	7.9D	17.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	1852.1	1853.6	2.5D	33.0			QL=6 ST=3 TYP=3
	8800	PALE	4	S/F	1852.3	1853.6	2.5D	21.0			QL=6 ST=3 TYP=3
	410	PALE	4	S/F	1852.6	1853.5	4.5	54.0			QL=6 ST=3 TYP=3
	2695	PALE	4	S/F	1853.0	1853.8	2.8D	20.0			QL=6 ST=3 TYP=3
	245	PALE	4	S/F	1923.8E	1927.3	6.3D	320.0			QL=6 ST=2 TYP=3
12	245	SGMR	43	NS	0929.0	2108.1	862.0D	130.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1635.0	1649.3	731.0D	190.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2304.0	2340.8	630.0D	139.0			QL=6 ST=2 TYP=1
	8800	LEAR	49	GB	0253.3	0254.8	8.3	1100.0			QL=6 ST=3 TYP=7
	410	LEAR	49	GB	0253.8	0254.6	12.0D	220.0			QL=6 ST=3 TYP=7
	245	LEAR	47	GB	0253.8	0254.8	13.5D	3200.0			QL=6 ST=3 TYP=5
	8800	LEAR	49	GB	0254.0	0255.0		10000.0			QL=6 ST=3 TYP=7
	1415	LEAR	49	GB	0254.0	0255.0	7.1D	91.0			QL=6 ST=3 TYP=7
	2695	LEAR	49	GB	0254.0	0255.0		200.0			QL=6 ST=3 TYP=7
	606	LEAR	49	GB	0254.1	0254.6	11.9D	92.0			QL=6 ST=3 TYP=7
	410	PALE	49	GB	0254.1	0254.8	15.9D	400.0			QL=6 ST=2 TYP=7
	4995	LEAR	49	GB	0254.1	0255.0	9.2D	300.0			QL=6 ST=3 TYP=7
	606	PALE	49	GB	0254.1	0255.1	15.9D	110.0			QL=6 ST=2 TYP=7
	245	PALE	49	GB	0254.1	0310.0		3300.0			QL=6 ST=2 TYP=7

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	2695	PALE	49	GB	0254.5	0254.8	15.5D	230.0			QL=6 ST=2 TYP=7
	8800	PALE	49	GB	0254.5	0254.8	15.5D	1000.0			QL=6 ST=2 TYP=7
	4995	PALE	49	GB	0254.5	0255.0	15.5D	310.0			QL=6 ST=2 TYP=7
	15400	PALE	49	GB	0254.6	0254.8	15.4D	1199.0			QL=6 ST=2 TYP=7
	1415	PALE	49	GB	0254.6	0255.0	15.4D	97.0			QL=6 ST=2 TYP=7
	410	LEAR	8	S	0323.1	0323.1	1.0D	17.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0323.1	0323.1	.7	119.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0556.3	0557.3	3.3D	820.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0556.8	0558.3	2.5	32.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	0953.5	0956.3	7.3	270.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	0956.0	0956.1	.3D	64.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1012.8	1013.1	1.8	19.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1013.6	1014.1	2.7D	47.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1013.6	1014.8	3.4D	32.0			QL=4 ST=2 TYP=3
13	245	SGMR	43	NS	1410.0	1411.3	582.0D	59.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2305.0	0403.3	628.0D	230.0			QL=6 ST=2 TYP=1
14	245	SGMR	43	NS	0927.0	1554.1	866.0D	180.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1725.0	0335.1	685.0D	330.0			QL=6 ST=2 TYP=1
	245	SGMR	4	S/F	1255.8	1257.3	3.5	94.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1256.6	1257.5	2.4D	11.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1256.6	1257.6	3.7D	139.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1256.8	1257.3	3.5	160.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1256.8	1257.6	2.0D	15.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1257.0	1257.3	2.8D	58.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1457.3	1503.1	11.5D	29.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1457.8	1503.1	6.2D	33.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1457.8	1503.3	9.2	160.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1519.8	1521.1	2.8D	36.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1520.5	1521.3	1.8D	38.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1521.1	1522.0	1.9	19.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1627.6	1632.8	4381.2	700.0			QL=6 ST=2 TYP=5
	245	PALE	4	S/F	1720.3	1720.6	2.5	170.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1721.1	1722.3	1.2D	28.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1721.6	1722.0	1.5	75.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1836.1	1836.1	.2D	45.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1836.1	1836.1	.4	190.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1905.3	1919.8	30.0	500.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1913.5	1920.1	17.0	440.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	2339.6	2341.3	2.5	690.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2339.8	2341.5	2.7	410.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2341.1	2341.3	.5	960.0			QL=6 ST=2 TYP=5
15	245	PALE	43	NS	1627.0	2143.8	750.0D	290.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2305.0	0348.1	627.0D	39.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0101.3	0103.1	5.7	1100.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0101.6	0103.1	4.0D	2000.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0102.0	0102.8	7.6D	190.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0102.1	0102.8	1.5	119.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0102.1	0102.8	5.2D	440.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0102.1	0103.1	4.5D	180.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0102.1	0103.1	3.2D	66.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0102.3	0103.0	2.8D	110.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0401.8	0402.8	1.7	58.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0435.1	0436.0	1.7D	21.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0435.1	0436.1	1.7D	39.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0435.3	0436.0	1.2D	18.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0435.5	0435.6	1.3	17.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0708.6	0708.8	1.0D	150.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0708.6	0709.3	1.0	270.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0731.3	0731.5	.3	69.0			QL=6 ST=3 TYP=3
	606	SGMR	8	S	1235.3	1236.1	2.0D	15.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1235.8	1236.0	1.3D	62.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1236.0	1236.1	.3	18.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2037.6	2041.1	6.7D	58.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2038.0	2040.8	4.0	53.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2038.0	2041.0	4.0	54.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2038.8	2040.8	3.0D	170.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2039.0	2040.6	3.0	190.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	410	PALE	4	S/F	2039.3	2040.3	2.7	41.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2039.3	2040.8	2.5D	41.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2039.8	2041.0	2.0	230.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2040.0	2041.0	2.0	280.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2327.3	2327.6	1.0D	100.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2327.5	2327.8	1.1	86.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2327.5	2327.8	.8	49.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2327.6	2327.8	1.0D	42.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2327.6	2327.8	.9	37.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2327.6	2327.8	.5D	19.0			QL=6 ST=2 TYP=3
16	245	SGMR	43	NS	0925.0	1648.0	870.0D	180.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1626.0	1647.8	753.0D	310.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2306.0	0526.3	626.0D	53.0			QL=6 ST=2 TYP=1
	410	PALE	47	GB	0133.6	0134.8	2.2	5100.0			QL=6 ST=2 TYP=5
	606	PALE	8	S	0330.1	0330.3	.4D	22.0			QL=5 ST=2 TYP=3
	410	PALE	8	S	0330.3	0330.5	.3	60.0			QL=5 ST=2 TYP=3
	606	SGMR	8	S	1636.1	1636.8	1.0	43.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2038.0	2040.5	6.0	27.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2039.1	2040.0	7.0D	13.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2201.3	2205.6	14.7D	27.0			QL=3 ST=2 TYP=4
	2695	PALE	4	S/F	2203.3	2210.1	10.5D	43.0			QL=3 ST=2 TYP=3
	8800	PALE	4	S/F	2203.6	2210.1	10.2D	43.0			QL=3 ST=2 TYP=3
	4995	PALE	4	S/F	2203.6	2210.1	10.2D	55.0			QL=3 ST=2 TYP=3
	1415	PALE	4	S/F	2203.8	2210.1	9.7	8.0			QL=3 ST=2 TYP=4
	245	SGMR	8	S	2211.1	2211.8	1.0	28.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2345.8	2346.1	.7	57.0			QL=5 ST=2 TYP=3
17	245	PALE	43	NS	1627.0	0058.3	501.0D	62.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2306.0	2334.0	626.0D	57.0			QL=6 ST=2 TYP=1
	8800	PALE	4	S/F	0201.6	0202.8	7.0D	22.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0202.3	0203.5	2.8	8.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0407.8	0408.6	1.0	410.0			QL=5 ST=2 TYP=3
	245	LEAR	8	S	0408.3	0408.6	.5	340.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0731.1	0734.8	11.0	240.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0731.6	0734.8	9.4D	62.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0731.6	0735.8	11.4D	100.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0731.6	0736.3	8.0D	35.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0731.8	0735.0	32.0	310.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0732.3	0735.8	12.7D	46.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0732.3	0735.8	19.5D	36.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0733.3	0735.1	9.8D	56.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0733.6	0735.0	20.0D	33.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0733.6	0735.1	12.4D	119.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1900.5	1902.3	4.1D	10.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1901.6	1902.3	2.7D	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1901.6	1902.5	3.0	19.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1905.0	1905.8	1.5D	310.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2043.8	2044.6	1.3	39.0			QL=5 ST=2 TYP=3
	1415	PALE	8	S	2146.0	2146.1	.3	20.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2333.8	2334.0	.3	180.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2333.8	2334.1	.5D	45.0			QL=6 ST=2 TYP=3
18	245	SGMR	43	NS	0923.0	1500.5	874.0D	43.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0058.1	0058.3	.5	100.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0058.1	0058.3	.5D	50.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0104.5	0107.0	8.0D	130.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0104.6	0107.0	7.5D	28.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0104.6	0107.0	7.9D	30.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	0105.1	0106.8	5.0	130.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0105.1	0109.6	7.7D	430.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0106.3	0106.8	1.5	10.0			QL=6 ST=2 TYP=3
	2695	PALE	47	GB	0106.3	0107.1	1.5	39.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0106.3	0108.1	8.7D	100.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	0106.6	0106.8	.9	31.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0107.3	0111.5	8.0D	62.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	0109.0	0109.5	3.1	62.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	0109.1	0109.6	1.0	52.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0110.0	0111.3	2.8	79.0			QL=6 ST=2 TYP=5
	15400	PALE	8	S	0110.5	0111.1	.6D	28.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	1415	LEAR	8	S	0551.3	0551.5	.3	11.0			QL=6 ST=3 TYP=3
19	245	LEAR	43	NS	0230.0	0233.3	32.0	11.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0922.0	1447.8	876.0D	300.0			QL=6 ST=2 TYP=1
	245	PALE	4	S/F	0213.1	0214.5	3.9	130.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0213.5	0214.3	3.3D	170.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0214.0	0214.6	2.1D	119.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0214.1	0214.5	.9	6.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0214.3	0214.5	2.0D	119.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0538.3	0538.8	2.2D	36.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0538.6	0539.3	2.2	25.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0538.6	0539.8	2.0D	100.0			QL=6 ST=3 TYP=3
	606	LEAR	47	GB	0538.6	0540.1	2.7D	900.0			QL=6 ST=3 TYP=5
	8800	ATHN	4	S/F	1417.8	1418.1	3.3	36.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1644.3	1645.5	1.7	260.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1645.1	1645.3	.9D	11.0			QL=6 ST=2 TYP=3
20	245	SGMR	43	NS	0921.0	1826.6	878.0D	300.0			QL=6 ST=2 TYP=1
	606	SGMR	4	S/F	1403.0	1410.3	10.3D	92.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1404.3	1410.8	10.0D	62.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1409.6	1411.3	3.5	62.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1425.8	1427.6	4.5D	33.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1426.3	1427.1	4.0	13.0			QL=6 ST=2 TYP=4
21	245	PALE	43	NS	2020.5	2028.5	504.5D	119.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	2135.0	2145.8	430.0D	37.0			QL=5 ST=2 TYP=1
	8800	SGMR	4	S/F	1445.6	1448.6	8.4	50.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1448.1	1448.6	6.4	47.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2055.1	2059.1	32.2	2000.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	2140.6	2141.0	3.4	119.0			QL=6 ST=3 TYP=3
22	245	SGMR	43	NS	1103.0	1618.5	778.0D	55.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1630.0	0306.3	745.0D	110.0			QL=5 ST=2 TYP=1
	245	PALE	43	NS	1630.0	1653.5	745.0D	150.0			QL=5 ST=2 TYP=1
	245	SGMR	47	GB	2053.0	2107.8	18.5	119.0			QL=6 ST=2 TYP=5
	1415	PALE	4	S/F	2153.3	2156.1	5.0	68.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2153.5	2156.1	4.8	56.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2153.8	2155.3	1.5D	28.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2155.3	2157.3	2.0	30.0			QL=6 ST=2 TYP=3
23	1415	ATHN	43	NS	0744.6	0749.8	36.0	190.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	0919.0	2120.8	883.0D	300.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1630.0	2123.0	735.0D	280.0			QL=5 ST=2 TYP=1
	245	LEAR	43	NS	2310.0	0832.6	620.0D	290.0			QL=6 ST=2 TYP=1
	1415	LEAR	4	S/F	0048.8	0050.3	4.8D	34.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0049.1	0050.3	3.5D	49.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0049.6	0050.8	4.0	24.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0746.3	0749.8	6.8	139.0			QL=3 ST=2 TYP=3
	8800	SGMR	4	S/F	1355.0	1356.1	3.0D	82.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1355.0	1356.1	3.0	51.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1355.5	1356.0	4.8	97.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	1439.5	1441.1	2.0D	3.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1440.0	1441.5	3.0	37.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1440.1	1441.6	6.9D	72.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1440.6	1441.5	4.5D	10.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1440.6	1441.6	3.5	78.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	1549.8	1550.8	1.3	40.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2258.6	2259.1	.7	39.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2259.0	2259.1	.1	17.0			QL=6 ST=2 TYP=3
24	245	SGMR	43	NS	0918.0	1816.5	885.0D	310.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1230.0	1452.8	693.0D	74.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1629.0	0257.1	741.0D	130.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1629.0	2143.0	741.0D	830.0			QL=6 ST=2 TYP=1
	2695	MANI	4	S/F	0049.3	0050.8	3.3D	26.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0049.3	0051.1	2.5	17.0			QL=6 ST=2 TYP=4
	1415	MANI	8	S	0049.6	0050.3	2.0D	33.0			QL=6 ST=2 TYP=4
	1415	PALE	8	S	0049.8	0050.3	1.0	39.0			QL=6 ST=3 TYP=3
	2695	PALE	8	S	0050.6	0050.8	.2	11.0			QL=6 ST=3 TYP=3
	606	MANI	4	S/F	0621.6	0623.0	3.0D	19.0			QL=6 ST=2 TYP=4

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	1415	MANI	8	S	0622.3	0623.6	1.5D	10.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0622.6	0623.6	2.7	13.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0651.0	0652.3	3.1	26.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0651.8	0653.0	4.2D	13.0			QL=6 ST=2 TYP=4
	245	LEAR	8	S	0840.5	0841.0	1.0D	590.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0841.0	0841.1	.6	130.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1152.8	1158.3	8.2	860.0			QL=6 ST=3 TYP=5
	606	SGMR	4	S/F	1209.0	1216.1	11.0D	91.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1209.5	1216.0	10.5	23.0			QL=6 ST=2 TYP=3
25	245	SGMR	43	NS	0917.0	1034.3	886.0D	2200.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	0917.0	1404.0	886.0D	200.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0917.0	1404.1	886.0D	350.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1625.0	1958.8	750.0D	490.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1625.0	2328.0	750.0D	530.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	2310.0	0743.1	620.0D	119.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2310.0	0758.1	620.0D	1500.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2310.0	0833.5	620.0D	139.0			QL=6 ST=2 TYP=1
	1415	LEAR	4	S/F	0126.0	0139.1	24.0D	31.0			QL=6 ST=2 TYP=4
	4995	LEAR	4	S/F	0126.0	0142.0	24.0D	19.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0126.1	0141.8	23.9	28.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0127.0	0132.1	23.0D	21.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0128.3	0129.8	21.7D	51.0			QL=6 ST=2 TYP=4
	8800	PALE	4	S/F	0128.3	0145.1	26.2	43.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0129.1	0130.5	20.9D	29.0			QL=6 ST=2 TYP=4
	2695	PALE	4	S/F	0129.3	0132.1	25.2	26.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0137.1	0139.1	17.4	27.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0138.6	0139.6	15.9	35.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0143.6	0143.8	10.9	139.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0325.1	0325.8	2.9D	460.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0327.0	0327.8	4.0	56.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0327.3	0327.5	1.7D	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1410.1	1412.3	5.2	20.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1410.6	1412.1	5.5D	18.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1550.0	1551.0	2.1	56.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1550.6	1551.0	1.2D	13.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1653.0	1653.5	.5	25.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1703.6	1705.6	2.0D	30.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	2353.5	2355.6	6.0D	119.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	2355.0	2355.8	4.8D	46.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	2355.1	2355.8	4.7D	36.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	2355.1	2356.5	4.7	33.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	2355.1	2357.1	4.4D	13.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2355.3	2355.6	1.3	139.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	2355.3	2356.3	3.5D	38.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2355.5	2355.8	1.1	46.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2355.6	2355.8	.7	35.0			QL=6 ST=2 TYP=3
26	245	PALE	43	NS	1625.0	1851.1		1300.0			QL=6 ST=3 TYP=1
	410	PALE	43	NS	1625.0	1935.3	750.0D	62.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2311.0	0313.6	618.0D	86.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2311.0	0856.3	618.0D	420.0			QL=6 ST=2 TYP=1
	4995	SGMR	8	S	1523.3	1524.3	1.8	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1530.3	1530.6	1.2	180.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1530.6	1530.8	.4D	10.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1725.6	1729.0	6.4	28.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1726.1	1729.0	5.7D	11.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1727.8	1728.8	4.7D	45.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	1728.0	1728.3	1.5	47.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1728.1	1728.3	.4	33.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1851.8	1851.8	.3	1600.0			QL=6 ST=3 TYP=5
	8800	SGMR	4	S/F	1855.5	1855.8	3.5D	11.0			QL=6 ST=3 TYP=4
	245	PALE	47	GB	2042.3	2042.5	1.3	550.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	2043.0	2043.3	.8	62.0			QL=6 ST=2 TYP=3
27	410	SGMR	43	NS	0916.0	1003.1		32.0			QL=6 ST=3 TYP=1
	245	SGMR	44	NS	0916.0E	1011.3	55.3D	420.0			QL=6 ST=3 TYP=1
	245	PALE	43	NS	1628.0	0323.8		1000.0			QL=6 ST=3 TYP=1
	410	PALE	43	NS	1628.0	2024.0	751.0D	280.0			QL=2 ST=2 TYP=1
	606	LEAR	43	NS	2311.0	0116.8	569.0D	32.0			QL=3 ST=2 TYP=1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
27	410	LEAR	43	NS	2311.0	0124.6	569.0D	170.0			QL=3 ST=2 TYP=1
	245	PALE	4	S/F	0304.8E	0305.1	3.2D	380.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0501.0	0503.1	3.0D	15.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0501.0	0503.1	4.0	10.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0501.8	0503.0	2.2D	4.0			QL=6 ST=2 TYP=4
	1415	MANI	47	GB	0707.1	0709.3	2.9	86.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0810.0	0821.6	25.6D	28.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	0810.5	0820.6	21.8D	18.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0813.6	0822.1	22.0	38.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1600.1	1600.8	5.7D	20.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1600.3	1601.3	5.5	62.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	1601.0	1602.6	5.3	1300.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1828.5	1828.8	1.1	660.0			QL=5 ST=2 TYP=5
	410	SGMR	4	S/F	1839.5	1844.1	13.3D	200.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1840.0	1842.8	6.8	340.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1841.8	1842.5	3.7	1399.0			QL=5 ST=2 TYP=5
	606	PALE	8	S	1842.1	1842.1	1.7	27.0			QL=5 ST=2 TYP=3
	245	SGMR	47	GB	1842.1	1843.0	11.4D	1199.0			QL=6 ST=2 TYP=5
	410	PALE	8	S	1843.5	1843.6	1.3	220.0			QL=5 ST=2 TYP=3
28	410	SGMR	43	NS	0915.0	1238.5	891.0D	92.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0915.0	1301.3	891.0D	550.0			QL=6 ST=2 TYP=1
	1415	SGMR	43	NS	1420.0	1608.1	586.0D	31.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	1420.0	1913.1	586.0D	38.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2311.0	0647.5	618.0	87.0			QL=3 ST=2 TYP=1
	245	LEAR	43	NS	2311.0	0726.3	618.0D	350.0			QL=3 ST=2 TYP=1
	8800	MANI	47	GB	0208.6	0215.3	7.2	59.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0539.3	0540.1	1.2	930.0			QL=6 ST=3 TYP=5
	1415	LEAR	8	S	0540.1	0540.3	.2D	29.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1417.3	1420.1	5.2D	29.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1418.3	1419.8	5.3D	93.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1419.0	1420.0	2.5	36.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1419.1	1420.0	2.4D	8.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1419.3	1419.6	2.5D	15.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1419.3	1420.1	2.3D	13.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1528.1	1532.8	6.2	15.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1528.3	1529.1	5.0D	8.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1529.0	1530.1	3.3D	5.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1549.8	1552.3	10.2D	11.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1550.0	1553.5	18.0D	57.0			QL=6 ST=3 TYP=3
	8800	ATHN	47	GB	1550.6	1554.1	20.5	119.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1551.0	1552.8	22.5D	85.0			QL=6 ST=3 TYP=5
	2695	SGMR	47	GB	1551.0	1553.0	19.0D	81.0			QL=6 ST=3 TYP=5
	15400	SGMR	47	GB	1552.0	1554.6	18.0D	43.0			QL=6 ST=3 TYP=5
	8800	SGMR	47	GB	1552.0	1554.6	18.5D	130.0			QL=6 ST=3 TYP=5
	410	SGMR	4	S/F	1552.0	1555.6	19.5D	150.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1552.3	1554.0	14.2	290.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1638.0	1638.8	4.1D	15.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1638.0	1639.0	4.1D	15.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1638.0	1639.0	4.1	18.0			QL=6 ST=2 TYP=3
	245	PALE	49	GB	1655.6E	1719.1	25.9D	510.0			QL=6 ST=3 TYP=7
	15400	SGMR	47	GB	1700.0	1714.6	40.0	2500.0			QL=6 ST=3 TYP=5
	2695	SGMR	47	GB	1700.0E	1718.1	41.1D	320.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1700.0	1719.8	23.0	480.0			QL=6 ST=2 TYP=5
	606	PALE	49	GB	1702.0	1728.5	30.3	720.0			QL=6 ST=3 TYP=7
	4995	PALE	49	GB	1710.0	1717.5	26.0D	700.0			QL=6 ST=3 TYP=7
	8800	PALE	49	GB	1710.1	1718.1	22.9D	2300.0			QL=6 ST=3 TYP=7
	15400	PALE	49	GB	1710.3	1717.8	23.7D	3100.0			QL=6 ST=3 TYP=7
	2695	PALE	49	GB	1710.5	1717.3	24.5D	260.0			QL=6 ST=3 TYP=7
	8800	ATHN	47	GB	1710.6	1717.8	14.4	2200.0			QL=5 ST=2 TYP=5
	410	PALE	49	GB	1712.1	1715.3	21.4D	34000.0			QL=6 ST=3 TYP=7
	1415	PALE	49	GB	1713.1	1717.8	21.0D	200.0			QL=6 ST=3 TYP=7
	4995	SGMR	4	S/F	1808.6	1810.5	4.2D	24.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1808.8	1810.8	3.5D	25.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1809.1	1810.8	4.4D	56.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1809.1	1810.8	4.5	87.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1940.1	1948.0	28.4	880.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	1943.1	1947.6	20.9	1199.0			QL=5 ST=2 TYP=5
	245	PALE	47	GB	1943.3E	1947.1	16.3D	1100.0			QL=5 ST=2 TYP=5
	4995	PALE	47	GB	1943.6	1947.6	21.2	2500.0			QL=5 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

MAY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
28	410	PALE	47	GB	1943.8E	2000.3	22.3D	3700.0			QL=5 ST=2 TYP=5
	8800	PALE	47	GB	1944.0	1947.6	23.6	4700.0			QL=5 ST=2 TYP=5
	1415	PALE	47	GB	1945.5	1947.8	13.5	400.0			QL=5 ST=2 TYP=5
	606	PALE	47	GB	1945.5	1958.0	18.8	6600.0			QL=5 ST=2 TYP=5
	15400	PALE	47	GB	1945.6	1947.6	23.7	2500.0			QL=5 ST=2 TYP=5
	410	SGMR	4	S/F	2203.0	2203.8	2.8D	250.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2314.1	2351.3	38.0D	230.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2336.6	2338.5	11.7	1100.0			QL=6 ST=3 TYP=5
	15400	PALE	4	S/F	2337.6	2343.6	13.4D	270.0			QL=6 ST=3 TYP=3
	2695	PALE	4	S/F	2337.8	2339.0	13.2D	63.0			QL=6 ST=3 TYP=3
	8800	LEAR	47	GB	2337.8	2343.5	18.3	370.0			QL=3 ST=2 TYP=5
	4995	PALE	4	S/F	2338.0	2342.0	13.0D	180.0			QL=6 ST=3 TYP=3
	8800	PALE	4	S/F	2338.0	2343.6	13.0D	390.0			QL=6 ST=3 TYP=3
	8800	MANI	47	GB	2338.3	2343.6	15.7	550.0			QL=6 ST=2 TYP=5
	1415	PALE	4	S/F	2338.5	2339.1	8.5D	82.0			QL=6 ST=3 TYP=3
	606	PALE	47	GB	2338.5	2341.0	15.5D	540.0			QL=6 ST=3 TYP=5
	245	SGMR	47	GB	2339.0	2339.1	13.1D	500.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	2339.0	2341.6	13.1D	470.0			QL=6 ST=2 TYP=3
29	410	SGMR	43	NS	0915.0	1441.3	892.0D	440.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0915.0	2226.8	892.0D	310.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1628.0	1844.1	744.0D	490.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1628.0	1909.5	744.0D	160.0			QL=6 ST=2 TYP=1
	2695	LEAR	4	S/F	0333.1	0334.6	3.7D	15.0			QL=3 ST=2 TYP=3
	245	LEAR	4	S/F	0333.1	0334.8	4.0D	210.0			QL=3 ST=2 TYP=3
	4995	LEAR	4	S/F	0333.5	0334.6	2.8	13.0			QL=3 ST=2 TYP=3
	410	LEAR	4	S/F	0333.6	0335.3	3.2D	50.0			QL=3 ST=2 TYP=3
	1415	LEAR	8	S	0333.8	0334.6	1.5D	7.0			QL=3 ST=2 TYP=3
	606	LEAR	4	S/F	0334.0	0334.8	2.1D	11.0			QL=3 ST=2 TYP=3
	8800	ATHN	4	S/F	0503.8	0511.0	39.0	370.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0503.8	0511.3	38.5D	100.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	0506.6	0511.1	15.9D	34.0			QL=6 ST=2 TYP=4
	8800	MANI	47	GB	0509.5	0537.5	28.0D	180.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0509.6	0510.8	16.4	240.0			QL=3 ST=2 TYP=5
	245	SGMR	4	S/F	1843.1	1844.8	3.9D	440.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1843.5	1843.6	.3D	25.0			QL=6 ST=2 TYP=3
30	245	SGMR	43	NS	0914.0	2055.6	894.0D	650.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1625.0	1709.8	725.0	47.0			QL=6 ST=3 TYP=1
	410	PALE	43	NS	1625.0	1727.3	725.0D	33.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	2313.0	0017.5	616.0D	93.0			QL=3 ST=2 TYP=1
	245	LEAR	43	NS	2313.0	0041.3	616.0D	310.0			QL=3 ST=2 TYP=1
	410	LEAR	8	S	0120.3	0121.5	2.0	52.0			QL=3 ST=2 TYP=3
	245	PALE	47	GB	2049.6	2053.8	6.0	850.0			QL=6 ST=2 TYP=5
	15400	PALE	4	S/F	2051.5	2054.3	3.0	21.0			QL=6 ST=3 TYP=3
	2695	PALE	8	S	2051.6	2051.8	.9	34.0			QL=6 ST=3 TYP=3
	8800	PALE	8	S	2051.6	2052.3	.9	17.0			QL=6 ST=3 TYP=3
	1415	PALE	8	S	2052.3	2052.3	.2	13.0			QL=6 ST=3 TYP=3
31	410	LEAR	43	NS	0211.0	0714.6	438.0D	11.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1625.0	1911.5	750.0	41.0			QL=6 ST=2 TYP=1
	4995	LEAR	4	S/F	0743.0	0744.3	2.3D	35.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0743.5	0744.3	1.8	64.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0743.8	0744.1	5.0	46.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1708.6	1708.8	.9	71.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2316.1	2316.3	.7	380.0			QL=6 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
01	245	SGMR	43	NS	0913.0	2117.1	896.0D	54.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1626.0	0416.6	747.0D	100.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	2313.0	0049.5	587.0D	46.0			QL=3 ST=2 TYP=1
	245	LEAR	43	NS	2314.0	0416.5	614.0D	71.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0713.1	0713.3	.5	71.0			QL=6 ST=3 TYP=3
	1415	ATHN	8	S	1349.8	1350.1	.8D	9.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1349.8	1350.5	3.0D	13.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1350.1	1350.1	2.2	32.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1350.1	1350.6	2.9D	19.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1350.1	1350.6	2.2D	23.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1350.3	1350.5	2.0D	13.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1350.3	1350.5	.7D	22.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1350.3	1350.5	1.3D	9.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1350.3	1350.8	2.2	30.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1427.6	1428.8	4.2D	29.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1427.8	1428.8	3.8D	15.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1428.1	1429.1	4.0	42.0			QL=6 ST=3 TYP=3
	410	SGMR	8	S	1428.3	1428.8	1.3D	11.0			QL=6 ST=3 TYP=3
	606	SGMR	8	S	1428.6	1428.8	.5D	6.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1519.6	1522.5	4.4D	47.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1519.8	1520.0	.3D	70.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1519.8	1520.1	3.0D	13.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1519.8	1520.8	4.2	64.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1520.0	1520.1	4.0D	17.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1520.0	1520.8	4.0D	42.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1520.0	1520.8	1.1D	240.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1520.1	1521.1	4.0	63.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1520.5	1520.8	1.1D	5.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1531.3	1532.8	4.3D	7.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1531.5	1532.6	4.0	18.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1532.0	1532.6	2.6D	9.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1652.0	1652.3	1.0D	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1652.0	1652.6	1.0	18.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1652.1	1652.5	.7D	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1924.1	1924.1	.7	42.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1924.8	1935.1	17.2	7.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1927.0	1933.8	15.0D	17.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1927.0	1934.0	15.0D	20.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	2039.8	2040.1	2.3D	21.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2040.1	2040.8	2.0	7.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2040.6	2040.8	.2	23.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2040.6	2041.1	1.4D	17.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2058.1	2058.3	.4	180.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2058.3	2058.3	.3	110.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2058.3	2058.5	.3	310.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2058.3	2059.1	1.8D	190.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2058.3	2059.1	.8	21.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2058.5	2058.8	1.3D	130.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2058.5	2058.8	1.6D	130.0			QL=6 ST=2 TYP=3
02	410	LEAR	43	NS	0124.1	0732.0	483.9D	110.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	0126.6	0137.6	206.4D	78.0			QL=6 ST=3 TYP=1
	245	SGMR	43	NS	0913.0	1035.0	897.0D	160.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1652.6	0257.8	726.4D	100.0			QL=5 ST=2 TYP=1
	245	LEAR	43	NS	2314.0	0515.3	614.0D	87.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0445.1	0445.6	1.2	79.0			QL=3 ST=2 TYP=3
	410	LEAR	8	S	0445.3	0445.6	1.0D	24.0			QL=3 ST=2 TYP=3
	410	LEAR	8	S	0657.3	0657.6	.7	21.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0657.5	0657.8	.8D	31.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1259.0	1259.8	4.0D	24.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1259.0	1300.1	3.0D	32.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1259.1	1300.3	3.9	22.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1352.3	1353.8	4.5D	23.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1353.1	1353.1	1.9D	210.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1353.1	1353.8	2.9D	480.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1353.3	1353.6	1.5D	19.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1353.5	1354.1	2.1D	6.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1353.8	1354.0	2.0D	6.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1354.1	1354.3	1.4	16.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1407.3	1407.5	.5	820.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
02	606	SGMR	8	S	1627.0	1628.1	2.0	67.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1724.3	1724.6	.5	63.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1724.5	1725.1	1.3	51.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1746.0	1747.0	1.5	1199.0			QL=5 ST=2 TYP=5
	245	SGMR	47	GB	1746.1	1748.3	5.7	2000.0			QL=6 ST=2 TYP=5
	606	PALE	8	S	2046.1	2046.1	.2	61.0			QL=1 ST=2 TYP=3
	4995	PALE	47	GB	2130.5	2133.6	11.3	79.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	2130.5	2134.1	14.3D	60.0			QL=6 ST=2 TYP=4
	2695	PALE	4	S/F	2130.5	2136.3	11.3	54.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	2130.8	2134.6	14.2D	22.0			QL=6 ST=2 TYP=4
	8800	PALE	47	GB	2131.1	2133.6	10.4	83.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	2132.0	2134.3	13.1	48.0			QL=6 ST=2 TYP=4
	1415	SGMR	4	S/F	2132.6	2137.0	8.0D	17.0			QL=6 ST=2 TYP=4
	15400	PALE	47	GB	2133.0	2134.3	4.8	37.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2135.1	2136.1	2.5	55.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	2135.6	2136.8	4.2D	45.0			QL=6 ST=2 TYP=4
	1415	PALE	47	GB	2135.8	2136.3	.8	15.0			QL=6 ST=2 TYP=5
03	245	PALE	43	NS	1628.0	0213.3	756.0D	119.0			QL=5 ST=2 TYP=1
	410	PALE	43	NS	1628.0	1921.0	756.0D	72.0			QL=5 ST=2 TYP=1
	245	LEAR	8	S	0105.0	0105.3	1.3	200.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0743.3	0744.1	4.7D	81.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1139.6	1142.5	7.4	81.0			QL=5 ST=2 TYP=3
	8800	SGMR	4	S/F	1140.3	1143.1	6.0	70.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1140.3	1143.1	3.2D	31.0			QL=6 ST=3 TYP=3
	2695	ATHN	4	S/F	1140.8	1143.1	6.0D	4.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1159.6	1205.3	18.9	43.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1202.8	1205.5	13.3D	26.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1205.0	1205.8	2.5D	32.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1206.3	1207.8	3.3D	35.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1439.5	1440.1	1.5	100.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1918.1	1919.0	5.9	119.0			QL=6 ST=2 TYP=5
	606	PALE	8	S	1920.1	1920.3	.9	33.0			QL=5 ST=2 TYP=3
	410	PALE	8	S	1920.3	1920.6	.8	70.0			QL=5 ST=2 TYP=3
	245	PALE	8	S	1920.6E	1920.8	1.5D	38.0			QL=5 ST=2 TYP=3
	15400	PALE	47	GB	2128.0	2130.8	14.8	500.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2128.1	2130.8	16.5	460.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	2128.3	2130.3	11.5	85.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	2128.5	2134.8	9.1	80.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	2128.6	2130.8	12.4	119.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2130.8	2131.1	.3	150.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	2131.1	2135.3	6.4	52.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2132.0	2138.6	9.5	1.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2140.0	2141.1	10.3	930.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	2147.3	2148.6	1.3D	13.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	2208.5	2209.6	3.6D	77.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2208.6	2208.8	6.4D	87.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2209.0	2209.5	3.1	22.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2209.0	2210.6	6.0D	33.0			QL=6 ST=2 TYP=3
04	410	LEAR	43	NS	0532.0	0541.1	236.0D	49.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0912.0	0956.8	899.0D	150.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0912.0	1453.8	899.0D	540.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1625.0	0243.1	759.0D	310.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1625.0	0246.8	759.0D	1100.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2314.0	0741.5	614.0D	200.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0528.1	0529.0	3.4	190.0			QL=6 ST=3 TYP=3
	8800	ATHN	47	GB	0549.6	0557.8	12.5	330.0			QL=2 ST=2 TYP=5
	8800	MANI	47	GB	0654.6	0655.0	3.2	550.0			QL=6 ST=2 TYP=5
	8800	ATHN	47	GB	0807.6	0832.3	82.7	2700.0			QL=5 ST=2 TYP=5
	8800	MANI	47	GB	0808.0	0839.8	65.0	1399.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0825.0	0832.0	38.8D	990.0			QL=6 ST=3 TYP=5
	2695	SGMR	8	S	1111.1	1111.8	1.7D	24.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1111.3	1111.8	1.5D	25.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1111.8	1112.0	1.0	32.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1349.0	1349.8	1.1	25.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1406.3	1407.1	1.7	57.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1406.3	1407.1	1.8D	6.0			QL=6 ST=2 TYP=4
	8800	SGMR	8	S	1406.6	1407.3	1.5D	11.0			QL=6 ST=2 TYP=4
	4995	SGMR	8	S	1406.8	1407.1	1.0D	13.0			QL=6 ST=2 TYP=4

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
04	15400	PALE	8	S	1710.1	1710.3	.2	28.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1740.5	1744.1	6.3D	66.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1741.0	1744.0	5.1D	2.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1741.0	1744.0	8.1D	40.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1742.0	1743.0	2.8	119.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1742.0	1743.0	1.5D	31.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1742.1	1742.3	.2	13.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1742.1	1742.3	.4	139.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	1742.1	1742.3	.2	45.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1742.6	1743.0	.7D	13.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1742.6	1743.0	.7D	11.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1743.3	1743.3	.3	38.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2258.8	2300.1	4.0	460.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2259.0	2300.8	4.3	200.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2259.0	2300.8	4.0	330.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2259.1	2301.3	10.9	170.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	2259.3	2301.3	10.7	240.0			QL=4 ST=3 TYP=3
	4995	SGMR	4	S/F	2259.3	2301.3	11.3D	220.0			QL=4 ST=2 TYP=3
	606	SGMR	4	S/F	2259.3	2301.3	5.5D	100.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	2259.3	2301.3	10.7D	540.0			QL=4 ST=2 TYP=5
	1415	SGMR	47	GB	2259.5	2300.6	8.3D	520.0			QL=6 ST=2 TYP=5
	606	PALE	8	S	2259.8	2300.8	1.0	150.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2308.6	2309.0	1.4	170.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	2308.6	2310.1	1.5D	15.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2308.6	2330.6	27.0	67.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2312.5	2316.1	19.0	200.0			QL=6 ST=2 TYP=5
05	245	PALE	44	NS	1635.0E	1642.5	734.0D	35.0			QL=5 ST=2 TYP=1
	410	PALE	44	NS	1635.0E	1706.1	734.0D	53.0			QL=5 ST=2 TYP=1
	245	LEAR	43	NS	2316.0	0800.0	612.0D	650.0			QL=6 ST=2 TYP=1
	4995	PALE	4	S/F	0023.6	0026.1	10.9	32.0			QL=6 ST=3 TYP=3
	8800	PALE	4	S/F	0024.8	0026.1	2.3	36.0			QL=6 ST=3 TYP=3
	2695	PALE	8	S	0025.6	0026.3	.7D	11.0			QL=6 ST=3 TYP=3
	15400	PALE	8	S	0031.3	0032.3	1.3	32.0			QL=6 ST=3 TYP=3
	606	PALE	8	S	0032.1	0032.3	.2	15.0			QL=6 ST=3 TYP=3
	606	PALE	4	S/F	0045.6	0048.3	3.5	62.0			QL=6 ST=3 TYP=3
	606	PALE	4	S/F	0109.3	0119.0	16.0	290.0			QL=6 ST=3 TYP=3
	245	PALE	8	S	0115.6	0115.8	.2	110.0			QL=6 ST=3 TYP=3
	410	PALE	4	S/F	0116.8	0120.8	4.0D	31.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0242.8	0243.1	.8D	65.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0246.8	0247.0	.8D	1399.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0622.0	0622.1	.5	1800.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	0645.3	0646.3	3.0D	4.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	0645.6	0645.6	4.0	93.0			QL=5 ST=2 TYP=3
	15400	PALE	8	S	2341.3	2341.3	.3	71.0			QL=6 ST=2 TYP=3
06	245	SGMR	43	NS	0911.0	2004.5	902.0D	840.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0911.0	2048.0	902.0D	370.0			QL=6 ST=2 TYP=1
	1415	MANI	8	S	0141.0	0141.6	1.0D	1.0			QL=6 ST=2 TYP=4
	8800	MANI	8	S	0141.0	0141.6	1.0	15.0			QL=6 ST=2 TYP=4
	4995	MANI	8	S	0141.0	0141.6	1.0D	19.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	0141.0	0141.6	2.0D	11.0			QL=6 ST=2 TYP=4
	245	LEAR	47	GB	0857.3	0857.5	3.3D	640.0			QL=1 ST=3 TYP=5
	606	MANI	4	S/F	0859.8	0900.0	2.2D	18.0			QL=6 ST=2 TYP=4
	1415	MANI	8	S	0900.0	0900.1	.5D	17.0			QL=6 ST=2 TYP=4
	4995	MANI	8	S	0900.0	0900.1	.5	13.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	0900.0	0900.1	1.0D	15.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	0952.1	0952.5	.7	3200.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1123.8	1126.6	16.0D	170.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1124.5	1125.0	5.5D	2300.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1124.5	1127.6	5.6	340.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1142.1	1142.3	7.4D	27.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1142.1	1142.3	3.0D	19.0			QL=5 ST=2 TYP=3
	15400	SGMR	8	S	1142.1	1142.5	.7D	260.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	1142.3	1142.3	1.2D	18.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	1142.3	1142.5	1.2	73.0			QL=5 ST=2 TYP=3
	245	SGMR	47	GB	1142.3	1142.5	2.0D	33000.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1142.3	1142.6	2.2D	24.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1142.3	1142.6	5.8D	22.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1142.3	1142.6	1.5D	139.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
06	8800	SGMR	4	S/F	1142.5	1142.6	2.5D	64.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1142.5	1142.6	3.8D	20.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1323.1	1323.1	4.0D	550.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1323.1	1326.0	4.0D	130.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1323.1	1326.1	4.5D	280.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1323.8	1325.6	2.7	16.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1355.1	1357.0	5.7D	25.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1356.0	1357.0	3.0	13.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1356.8	1357.5	6.5	18.0			QL=5 ST=2 TYP=3
	606	SGMR	4	S/F	1411.1	1419.0	23.9D	310.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1417.3	1418.8	11.8D	18.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1417.6	1418.8	5.0D	30.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1418.3	1419.0	6.7D	39.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1418.3	1420.0	9.7D	16.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1418.6	1419.0	2.9	17.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1550.5	1552.1	2.0D	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1551.8	1552.3	1.2	19.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1552.0	1552.3	.6D	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1717.0	1718.3	7.0D	40.0			QL=6 ST=3 TYP=5
	2695	SGMR	4	S/F	1717.0	1722.5	7.0D	20.0			QL=6 ST=3 TYP=3
	8800	PALE	8	S	1718.0	1718.1	.1	50.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1718.0	1718.1	.6D	18.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1718.8	1724.3	15.7	480.0			QL=6 ST=3 TYP=5
	410	SGMR	47	GB	1720.6	1727.1	35.4D	320.0			QL=6 ST=3 TYP=5
	606	SGMR	47	GB	1721.5	1722.1	12.5D	86.0			QL=6 ST=3 TYP=5
	410	PALE	8	S	1721.5	1724.1	2.6D	83.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1721.6	1721.8	.9	96.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2130.1	2130.3	19.9	11999.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	2130.1	2130.8	1.5	970.0			QL=6 ST=2 TYP=5
	8800	PALE	4	S/F	2130.1	2130.8	3.4	230.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2130.3	2130.8	3.3	430.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2130.3	2131.0	2.8	119.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2130.3	2131.1	1.3	290.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2334.1	2334.6	1.2	4700.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2334.3	2334.8	1.5	2900.0			QL=6 ST=2 TYP=5
	606	PALE	8	S	2334.6	2334.8	.4	60.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2334.6	2334.8	.5	130.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2334.6	2334.8	.2	64.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2334.8	2335.0	.5	65.0			QL=6 ST=2 TYP=3
	606	MANI	8	S	2334.8	2335.1	.7D	20.0			QL=6 ST=2 TYP=4
	1415	MANI	8	S	2334.8	2335.3	1.3D	44.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	2335.0	2335.1	.5	7.0			QL=6 ST=2 TYP=4
	245	PALE	8	S	2339.3	2340.1	1.0	480.0			QL=6 ST=3 TYP=3
07	245	LEAR	43	NS	2316.0	0424.5	612.0D	1500.0			QL=6 ST=2 TYP=1
	410	PALE	8	S	0008.3	0008.5	.5	100.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0116.6	0117.1	5.7	5200.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	0116.8	0117.3	2.5	700.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	0116.8	0118.1	1.8	96.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	0117.0	0117.3	1.6	330.0			QL=6 ST=2 TYP=5
	8800	MANI	47	GB	0117.0	0117.6	6.0	440.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	0117.1	0129.1	19.0	290.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	0117.3	0118.1	1.3	55.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	0117.3	0118.1	1.2	45.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0117.3	0118.6	21.8	300.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0227.3	0227.3	.5	7100.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0248.5	0248.8	.5	510.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0311.8	0312.3	4.0	16000.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	0311.8	0312.8	6.2	130.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0311.8	0312.8	4.0	170.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	0312.0	0312.1	6.1	720.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	0312.0	0312.6	3.8	530.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	0312.1	0312.3	1.0	930.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0312.1	0312.8	3.2	4400.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	0312.1	0312.8	5.0	1900.0			QL=6 ST=2 TYP=5
	8800	MANI	47	GB	0312.1	0312.8	5.9	540.0			QL=6 ST=2 TYP=5
	410	PALE	8	S	0345.6	0345.8	.4	260.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0345.6	0345.8	.5	1300.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0405.3	0405.5	.3	600.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0553.3	0554.3	1.8	700.0			QL=1 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
07	8800	MANI	8	S	0724.5	0724.8	1.5	13.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	0940.5	0941.3	2.0	410.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1105.6	1106.0	.9	240.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1629.0	1826.0	741.0D	61.0			QL=6 ST=2 TYP=3
08	245	SGMR	43	NS	0911.0	1515.6	903.0D	820.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1720.6	1941.0	174.4	65.0			QL=5 ST=3 TYP=1
	245	PALE	43	NS	1722.0	0106.8	702.0	180.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2316.0	0113.3	612.0D	1500.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0424.3	0424.5	.5	1000.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0727.1	0727.3	1.9D	6800.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0830.5	0831.5	2.8D	170.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1024.6	1035.1	14.5	51.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1027.1	1032.1	12.7D	68.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1027.1	1032.1	13.7D	200.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1027.3	1033.3	12.5D	66.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1027.6	1032.0	10.4D	26.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1027.6	1032.0	13.5D	139.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1027.8	1031.6	13.0D	74.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1030.5	1034.5	9.5D	84.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1042.6	1047.6	15.2	74.0			QL=2 ST=2 TYP=4
	1415	ATHN	4	S/F	1044.6	1046.3	6.9D	38.0			QL=2 ST=2 TYP=4
	2695	ATHN	4	S/F	1045.0	1047.8	11.1D	80.0			QL=2 ST=2 TYP=4
	606	SGMR	8	S	1327.1	1327.3	.9	97.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1534.5	1535.0	1.3	3300.0			QL=6 ST=2 TYP=5
	2695	SGMR	4	S/F	1653.5	1658.6	17.8D	119.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1655.0	1659.0	11.0	130.0			QL=5 ST=2 TYP=3
	4995	SGMR	4	S/F	1655.3	1658.8	6.8D	57.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	1656.0	1659.1	13.0	80.0			QL=5 ST=2 TYP=3
	1415	SGMR	4	S/F	1656.3	1659.0	10.8D	74.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1656.3	1659.1	8.0	37.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1656.5	1659.6	8.8D	25.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1656.6	1659.6	10.5D	58.0			QL=2 ST=2 TYP=4
	2695	ATHN	4	S/F	1656.8	1659.6	8.7D	85.0			QL=2 ST=2 TYP=4
	4995	PALE	4	S/F	1657.0	1659.0	6.0	70.0			QL=5 ST=2 TYP=3
	15400	PALE	4	S/F	1658.0	1659.1	3.0	30.0			QL=5 ST=2 TYP=3
	606	PALE	4	S/F	1658.0	1659.5	9.0	25.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1658.5	1659.6	6.8	32.0			QL=2 ST=2 TYP=4
	8800	PALE	8	S	1659.0	1659.0	2.0	30.0			QL=5 ST=2 TYP=3
	606	SGMR	4	S/F	1718.1	1723.8	9.0D	32.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	1719.8	1721.8	2.0D	13.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1720.6	1723.6	8.5D	49.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1721.8	1723.1	4.0	32.0			QL=6 ST=2 TYP=4
	1415	SGMR	4	S/F	1721.8	1723.8	5.0	8.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1722.8	1726.1	4.8	90.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	1723.0	1723.6	.6D	13.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1815.8	1816.1	10.2	16.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1816.0	1816.1	8.0	11.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1918.3	1919.8	4.0	29.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1918.3	1920.3	2.5	83.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	1919.3	1920.3	1.0	55.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1940.3	1944.3	5.8D	47.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1942.0	1944.1	2.6	49.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1942.5	1943.5	3.8D	950.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1943.1	1944.1	2.7D	59.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1943.3	1943.8	1.0	950.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	1943.3	1944.1	2.0	54.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	1943.6	1944.0	.7	52.0			QL=6 ST=2 TYP=3
09	245	PALE	43	NS	1630.0	1954.6	754.0D	600.0			QL=5 ST=2 TYP=1
	245	SGMR	43	NS	1700.0	1715.8		55.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2316.0	0525.8	612.0D	310.0			QL=6 ST=2 TYP=1
	606	SGMR	4	S/F	0009.8	0011.5	3.8	51.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	0009.8	0012.1	2.8D	440.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	0010.0	0012.0	2.8D	280.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0051.8	0052.5	1.5D	320.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0052.5	0052.6	.3	430.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	0052.8	0053.1	.3	66.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0052.8	0053.1	.5	210.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0108.5	0108.6	2.3	160.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	245	PALE	47	GB	0113.3	0113.3	.3	1000.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0113.3	0113.3	.5	250.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0124.0	0124.1	.1	110.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0124.1	0124.6	.7	84.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0226.3	0226.6	.3	84.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0226.6	0226.8	.4	40.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0251.1	0251.3	7.5	1900.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	0251.3	0251.8	7.3	190.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0251.3	0256.1	7.3	320.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	1134.5	1134.8	.5	180.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1335.8	1336.1	1.0	33.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1336.1	1336.3	.5D	88.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1520.6	1520.8	3.5	44.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1844.8	1855.6	11.3	2000.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1851.8	1852.0	.3	1000.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1954.6	1954.8	.7	890.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	2001.6	2002.1	.7	450.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2300.5	2301.1	3.0	3300.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	2301.0	2301.1	1.0	3200.0			QL=6 ST=2 TYP=5
	410	PALE	8	S	2321.3	2321.5	.3	20.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2321.3	2321.6	.3	180.0			QL=6 ST=2 TYP=3
10	245	SGMR	43	NS	0910.0	1022.3	905.0D	240.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1630.0	0319.8	752.0D	160.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2317.0	0753.5	611.0D	48.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0041.5	0041.8	.5	520.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0150.6	0151.6	1.5D	39.0			QL=6 ST=2 TYP=3
11	245	SGMR	43	NS	0910.0	2017.8	906.0D	119.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2317.0	0614.3	611.0D	24.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0243.3	0243.6	1.3D	65.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0319.3	0319.8	1.2	150.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1624.0	1624.3	.8	23.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1624.1	1624.1	.5D	44.0			QL=6 ST=2 TYP=3
12	245	SGMR	43	NS	1400.0	1810.1	616.0D	119.0			QL=2 ST=3 TYP=1
	245	LEAR	43	NS	2318.0	0456.5	610.0D	72.0			QL=3 ST=2 TYP=1
	606	SGMR	4	S/F	1338.5	1341.8	8.5D	83.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1339.6	1342.8	3.4D	570.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	1339.8	1339.8	2.0	11.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1339.8	1340.1	3.0D	11.0			QL=6 ST=2 TYP=3
	1415	ATHN	8	S	1453.5	1453.6	.5	71.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1453.5	1453.6	.6	61.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1517.1	1518.5	4.0D	170.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1517.3	1518.0	2.3D	13.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1517.3	1518.1	2.5D	43.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1517.3	1518.3	3.3D	65.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1517.5	1518.1	2.5	22.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1517.5	1518.1	2.8D	51.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1517.5	1518.3	1.1	84.0			QL=2 ST=2 TYP=3
	15400	SGMR	4	S/F	1517.8	1518.3	2.7	21.0			QL=6 ST=2 TYP=3
	1415	ATHN	8	S	1518.0	1518.1	.5D	13.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1518.6	1519.1	1.0D	97.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2012.5	2012.8	.8	1199.0			QL=2 ST=2 TYP=5
	410	SGMR	8	S	2012.5	2013.3	1.3	77.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2202.0	2207.3	7.1D	27.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2203.6	2207.5	5.9	54.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2204.0	2207.6	5.0D	19.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2204.1	2204.5	3.0D	26.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2206.3	2207.3	2.3	61.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2206.3	2207.3	2.0	39.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2206.6	2207.5	1.5	26.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2206.8	2207.3	1.2	31.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2236.8	2237.0	1.0D	210.0			QL=6 ST=3 TYP=3
	606	SGMR	8	S	2237.0	2237.3	1.1	150.0			QL=6 ST=3 TYP=3
13	410	SGMR	43	NS	0910.0	2112.8	907.0D	78.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0910.0	2114.0	907.0D	260.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2318.0	0423.3	610.0D	35.0			QL=6 ST=2 TYP=1
	2695	MANI	4	S/F	0034.8	0035.8	3.7D	44.0			QL=6 ST=2 TYP=4

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
13	4995	MANI	4	S/F	0034.8	0036.1	3.2D	27.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0035.0	0036.1	3.5D	55.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0035.0	0036.3	3.0	30.0			QL=6 ST=2 TYP=4
	2695	PALE	8	S	0035.1	0035.8	1.9	51.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0035.1	0036.0	2.2	56.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0035.3	0036.1	1.0	19.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0035.5	0037.3	5.6D	650.0			QL=3 ST=2 TYP=5
	410	PALE	8	S	0035.6	0036.0	.7	350.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0035.8	0036.1	.3	16.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	0035.8	0036.6	1.0	22.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0035.8	0037.5	4.3	760.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0127.1	0129.1	3.4D	130.0			QL=3 ST=2 TYP=3
	245	PALE	47	GB	0128.8	0129.1	.5	180.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0154.0	0155.6	3.3D	860.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	0155.0	0155.6	2.0	1100.0			QL=6 ST=3 TYP=5
	410	PALE	4	S/F	0155.1	0156.1	2.7	50.0			QL=6 ST=3 TYP=3
	1415	PALE	4	S/F	0155.6	0156.6	3.4	13.0			QL=6 ST=3 TYP=3
	1415	MANI	47	GB	0247.3	0300.1	14.0D	55.0			QL=6 ST=2 TYP=5
	8800	MANI	4	S/F	0247.6	0248.1	14.4	220.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0247.6	0248.3	12.0D	43.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0247.6	0248.3	13.4D	110.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0256.5	0258.6	2.8	540.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0257.6	0258.8	1.7	940.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	0258.0	0258.5	3.1	200.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	0258.0	0258.6	1.1	63.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	0258.0	0258.6	1.3	46.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	0258.0	0258.6	1.8	110.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	0258.1	0258.5	2.2	87.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	0258.3	0258.6	.5	16.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0338.0	0338.5	2.1	38.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0812.0	0812.5	2.1	15.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1145.5	1145.6	.5	6.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1145.5	1145.8	1.3	52.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	1511.8	1513.0	2.3	92.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1512.8	1512.8	.3	7.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2231.8	2234.1	4.0D	29.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2233.0	2234.1	2.5D	25.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	2233.1	2234.3	2.5	25.0			QL=4 ST=2 TYP=3
	8800	PALE	47	GB	2233.8	2234.1	.5	30.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2234.0	2234.1	.3	38.0			QL=6 ST=2 TYP=5
	2695	SGMR	8	S	2234.1	2234.8	1.7D	11.0			QL=4 ST=2 TYP=3
14	245	SGMR	43	NS	0910.0	2020.5	907.0	160.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1637.0	1908.8	747.0D	190.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1637.0	2312.5	747.0D	68.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	2120.6	735.0D	119.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2318.0	0433.1	610.0D	730.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	0348.1	0351.1	4.0	50.0			QL=2 ST=2 TYP=3
	2695	ATHN	4	S/F	0348.5	0351.0	3.1	11.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0355.1	0355.6	1.0	43.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	0355.1	0356.1	1.9D	67.0			QL=6 ST=2 TYP=4
	8800	MANI	8	S	0355.1	0356.1	1.7	56.0			QL=6 ST=2 TYP=4
	15400	PALE	8	S	0355.3	0355.6	.5	33.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0355.3	0355.8	1.0	35.0			QL=6 ST=2 TYP=3
	2695	MANI	8	S	0355.5	0356.1	2.0D	36.0			QL=6 ST=2 TYP=4
	8800	ATHN	8	S	0449.6	0449.8	1.0	40.0			QL=2 ST=2 TYP=3
	8800	ATHN	4	S/F	0454.5	0455.0	6.5	80.0			QL=2 ST=2 TYP=3
	4995	ATHN	4	S/F	1447.8	1450.6	18.5D	19.0			QL=5 ST=2 TYP=4
	2695	ATHN	4	S/F	1447.8	1450.6	18.5D	19.0			QL=5 ST=3 TYP=4
	2695	SGMR	4	S/F	1448.0	1449.8	3.5D	20.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1448.0	1449.8	3.6	24.0			QL=5 ST=3 TYP=4
	4995	SGMR	4	S/F	1448.1	1449.6	3.4D	64.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1448.6	1449.8	2.7	25.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1657.1	1701.8	10.7D	58.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1700.1	1701.8	4.2D	39.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1700.1	1702.1	4.0D	8.0			QL=5 ST=2 TYP=4
	245	PALE	4	S/F	1700.3	1701.1	7.8	160.0			QL=2 ST=2 TYP=3
	2695	ATHN	4	S/F	1700.3	1702.0	4.2D	35.0			QL=5 ST=3 TYP=4
	4995	ATHN	4	S/F	1700.3	1702.0	4.2D	35.0			QL=5 ST=2 TYP=4
	410	SGMR	4	S/F	1700.5	1701.0	2.6D	26.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
14	8800	SGMR	4	S/F	1700.6	1702.1	2.9	16.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1700.8	1701.8	7.3	30.0			QL=2 ST=2 TYP=3
	1415	SGMR	4	S/F	1700.8	1702.0	2.2D	29.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1700.8	1702.0	2.2D	22.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1701.1	1701.8	2.7D	160.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1701.5	1701.6	13.0	73.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	1701.5	1701.8	6.6	36.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1701.5	1701.8	13.0	52.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1701.5	1702.0	2.0	11.0			QL=5 ST=3 TYP=4
	8800	PALE	4	S/F	1702.5	1702.8	12.0	50.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	1702.5	1708.0	12.0	16.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1822.5	1823.8	2.8D	61.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1823.0	1824.0	2.1D	28.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	1823.1	1823.8	2.0	66.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1823.1	1824.1	2.2	24.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1823.3	1823.8	1.0	34.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	1823.3	1824.0	1.2	30.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	1823.3	1826.0	3.8	19.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1823.5	1823.8	1.5D	78.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	1823.6	1823.6	.2	50.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2013.3	2013.3	.3	31.0			QL=6 ST=3 TYP=3
	8800	PALE	47	GB	2021.1	2021.5	1.7	2100.0			QL=2 ST=2 TYP=5
15	245	SGMR	43	NS	0910.0	1611.1	907.0D	1100.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1700.0	1904.8	724.0D	87.0			QL=6 ST=2 TYP=1
	606	SGMR	8	S	1159.8	1200.0	.5D	21.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1159.8	1200.0	.7	67.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1159.8	1200.1	.5D	23.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1315.1	1317.3	6.9	22.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1315.3	1318.1	5.8D	20.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1315.6	1317.8	5.4D	36.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1315.6	1318.1	5.5D	26.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1528.6	1531.0	4.4	360.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1529.8	1531.8	3.0D	60.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1727.3	1728.1	1.7D	24.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1727.6	1728.0	1.7	21.0			QL=6 ST=2 TYP=3
16	245	SGMR	43	NS	0910.0	2105.0	908.0D	720.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1630.0	0356.6	750.0D	560.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2319.0	0356.8	610.0D	530.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0228.1	0228.5	1.2	680.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1756.0	1757.0	2.3	91.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1819.8	1821.3	4.2	170.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1927.6	1929.8	4.5D	32.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1927.8	1928.6	2.7	260.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1928.3	1930.0	2.5D	17.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2031.0	2033.8	5.0	310.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2033.5	2034.1	1.1D	59.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2118.0	2118.3	.3D	28.0			QL=6 ST=2 TYP=3
17	245	SGMR	43	NS	0910.0	1759.6	908.0D	1300.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1745.0	2148.3	678.0D	230.0			QL=6 ST=3 TYP=1
	1415	ATHN	8	S	0357.3	0357.6	1.0D	15.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	0357.3	0358.1	1.0	27.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	0357.6	0358.1	1.2D	7.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1455.6	1458.6	4.7	1199.0			QL=6 ST=2 TYP=5
18	245	SGMR	44	NS	0910.0E	0950.1	40.1D	110.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2319.0	0711.8	610.0D	139.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0518.1	0518.6	1.2	560.0			QL=3 ST=2 TYP=5
	8800	SGMR	8	S	1831.1	1832.3	1.7	27.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2337.0	2337.1	1.0	83.0			QL=6 ST=2 TYP=3
19	245	SGMR	43	NS	0910.0	2126.1	909.0D	660.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1630.0	0354.3	753.0D	290.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	0446.3	0527.6	108.2	66.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0447.3	0531.0	107.2D	23.0			QL=6 ST=2 TYP=4
	1415	SGMR	47	GB	1831.5	1839.1	11.5D	100.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1832.0	1838.8	12.1D	40.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	1837.1	1838.6	7.7D	39.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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JUNE 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	4995	PALE	4	S/F	1837.8	1839.1	4.3D	119.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1838.0	1839.1	5.0D	190.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	1838.1	1839.1	6.2D	100.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1838.8	1839.0	1.2	26.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1838.8	1839.1	5.8	36.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1838.8	1839.1	1.3D	57.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	1839.0	1839.1	3.6D	110.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1947.3	1951.3	10.7D	59.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1947.6	1951.5	8.4	43.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1948.0	1951.6	8.5D	44.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1949.0	1952.0	7.0D	29.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2042.1	2043.0	2.7	1100.0			QL=6 ST=2 TYP=5
20	245	LEAR	43	NS	0336.0	0548.0	354.0D	34.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2320.0	0041.0	610.0D	88.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	0450.5	0451.3	2.1	31.0			QL=6 ST=2 TYP=4
	2695	ATHN	8	S	0450.6	0451.5	1.4D	7.0			QL=6 ST=2 TYP=4
	245	SGMR	8	S	1349.6	1349.8	1.2	73.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1906.6E	1907.6	10.0D	30.0			QL=6 ST=2 TYP=3
21	245	SGMR	43	NS	1937.0	1938.6	282.0D	83.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1937.1	1942.3	281.9D	15.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2320.0	0545.5	610.0D	130.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0041.0	0118.6	68.0	560.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0043.8	0054.3	24.7D	250.0			QL=6 ST=3 TYP=3
	8800	MANI	47	GB	0049.8	0118.8	38.3	1800.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0112.5	0117.8	15.3D	400.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	0553.6	0554.3	4.5	88.0			QL=5 ST=2 TYP=3
	8800	ATHN	8	S	1346.6	1346.8	.7	86.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1813.3	1813.5	1.7	1800.0			QL=5 ST=2 TYP=5
	606	SGMR	8	S	1933.1	1934.8	2.0	46.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2250.5	2251.1	1.3	52.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2250.6	2251.3	1.7	17.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2250.6	2251.3	1.7D	29.0			QL=4 ST=2 TYP=3
22	245	SGMR	43	NS	0911.0	1804.8	908.0D	330.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1630.0	0209.6	750.0D	280.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0431.0	0432.6	2.6D	290.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0432.3	0432.8	1.7	19.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1123.5	1124.1	1.5	700.0			QL=6 ST=3 TYP=5
	410	SGMR	8	S	1123.8	1124.5	1.8D	63.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1259.1	1259.8	18.9D	53.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1302.0	1327.1	32.6D	32.0			QL=6 ST=2 TYP=4
	1415	SGMR	4	S/F	1303.3	1315.0	19.7D	30.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1308.0	1316.1	12.0D	17.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1310.0	1327.3	21.0D	15.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1310.0	1333.1	26.5	28.0			QL=6 ST=2 TYP=4
	245	SGMR	4	S/F	1315.0	1316.1	3.0D	13.0			QL=6 ST=2 TYP=4
23	245	SGMR	43	NS	0911.0	1740.8	909.0D	510.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1635.0	1943.6	745.0D	96.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1635.0	2035.1	745.0D	28.0			QL=6 ST=2 TYP=1
	4995	MANI	4	S/F	0212.0	0216.1	7.0D	41.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0212.0	0216.3	7.0D	22.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0213.0	0213.5	5.6D	35.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0214.6	0215.1	3.9	38.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	0220.3	0221.8	3.0D	32.0			QL=6 ST=2 TYP=3
	1415	ATHN	47	GB	0336.6	0337.6	4.2D	66.0			QL=5 ST=2 TYP=5
	8800	ATHN	4	S/F	0337.3	0338.8	3.0	23.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	0337.3	0339.0	2.8D	25.0			QL=5 ST=2 TYP=3
	410	PALE	47	GB	0338.1	0339.6	4.0	1000.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0353.8	0355.6	5.0	2700.0			QL=6 ST=2 TYP=5
	606	MANI	4	S/F	0354.0	0355.3	2.5D	17.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0354.1	0354.5	2.9D	20.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0354.3	0354.5	2.7D	56.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0354.3	0354.5	2.3	44.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0354.3	0355.1	2.3D	9.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	0523.1	0523.5	1.2	13.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	0523.1	0523.5	.9D	6.0			QL=6 ST=2 TYP=4
	1415	MANI	47	GB	0523.1	0524.5	6.4D	130.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	2695	MANI	4	S/F	0622.8	0624.6	4.5D	32.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0623.3	0624.6	4.0	30.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0624.1	0625.6	4.5D	29.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	0625.1	0625.8	1.7	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1237.1	1238.1	2.9	17.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1237.1	1238.5	3.5D	7.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	2310.6	2311.8	2.4D	25.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2311.6	2312.1	1.4	28.0			QL=4 ST=2 TYP=3
	410	SGMR	47	GB	2336.0	2342.0	10.1	3500.0			QL=6 ST=2 TYP=5
24	245	LEAR	43	NS	0400.0	0426.3	330.0D	82.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0912.0	1009.6	908.0D	57.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0912.0	1351.1	908.0D	2300.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0812.8	0812.8	1.8	119.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0922.0	0923.6	2.3	220.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1132.1	1132.1	.2	650.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1137.6	1138.1		11999.0			QL=6 ST=3 TYP=5
	2695	SGMR	4	S/F	1255.1	1258.8	8.7D	27.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1257.6	1258.8	5.5	17.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1521.1	1522.8	5.0D	28.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1521.8	1522.8	3.3D	38.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1522.3	1524.5	5.2D	9.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1522.5	1523.6	5.1D	13.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1522.6	1523.0	3.9	17.0			QL=6 ST=2 TYP=4
	15400	SGMR	4	S/F	1522.8	1523.0	2.3	24.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1957.0	1959.0	3.0D	46.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1957.3	1959.0	3.8D	77.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1957.6	1958.1	2.2D	78.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1957.8	1958.1	2.3	29.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	1958.0	1958.3	1.0	26.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1958.0	1958.3	1.3	70.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1958.0	1958.8	1.3	64.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1958.5	1958.8	.8	50.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2051.0	2051.8	1.1	160.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2051.3	2051.5	.5	190.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2051.8	2051.8	3.3D	39.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	2319.6	2322.6	4.2	790.0			QL=6 ST=2 TYP=5
25	245	LEAR	43	NS	0600.0	0755.5	211.0D	61.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0912.0	2125.5	908.0D	70.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1631.0	2246.1	746.0D	320.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	2124.1	2127.8	175.9D	51.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2321.0	0200.8	610.0D	200.0			QL=6 ST=2 TYP=1
	245	PALE	8	S	0010.8	0011.1	.7	78.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0148.0	0148.8	1.5	17.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1135.1	1135.1	.7	54.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1147.3	1148.6	1.5	1700.0			QL=5 ST=2 TYP=5
	4995	SGMR	4	S/F	1235.8	1238.1	7.2D	46.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1236.0	1238.1	4.0	9.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1236.1	1238.1	7.7D	27.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1236.3	1238.3	4.0	45.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1236.6	1238.1	7.5D	37.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1237.1	1238.3	3.2D	23.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1549.5	1552.0	14.0D	80.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1549.5	1553.3	12.5D	190.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1549.5	1553.5	12.5	94.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1549.5	1553.5	16.3	430.0			QL=5 ST=2 TYP=5
	8800	SGMR	4	S/F	1549.5	1553.5	13.5D	270.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1742.3	1742.6	.8	170.0			QL=6 ST=2 TYP=3
26	245	SGMR	43	NS	0912.0	2332.3	908.0D	220.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2321.0	0852.1	610.0D	690.0			QL=6 ST=2 TYP=1
	2695	PALE	4	S/F	0119.1	0119.5	3.5	16.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0417.6	0418.8	2.0	360.0			QL=5 ST=2 TYP=3
	245	SGMR	8	S	1220.0	1220.8	1.1	26.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1220.0	1221.3	1.8D	87.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1401.6	1402.0	1.0	43.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1437.6	1439.3	4.5D	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1438.8	1439.6	1.3	15.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1438.8	1440.1	7.2D	11.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
26	1415	SGMR	8	S	1537.8	1538.0	1.5D	25.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1537.8	1538.1	.5	91.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1651.1	1651.3	1.2D	6.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1651.3	1651.5	.8D	26.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1651.6	1651.6	.7	13.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	1821.8	1822.1	1.5	48.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	1821.8	1822.1	1.2	28.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	1912.6	1912.8	.9	119.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1912.8	1912.8	.5	21.0			QL=6 ST=2 TYP=3
27	410	SGMR	43	NS	0913.0	1457.8	907.0D	22.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0913.0	1656.3	907.0D	260.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1635.0	2259.0	743.0D	65.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1635.0	2332.8	745.0D	360.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	2245.0	2318.1	375.0D	100.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2321.0	0110.3	610.0D	150.0			QL=6 ST=2 TYP=1
	4995	MANI	4	S/F	0607.0	0609.6	6.3	57.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0609.0	0609.5	2.5D	16.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1346.3	1349.3	4.2D	11.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1346.5	1349.5	4.0	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1346.8	1349.3	3.7D	15.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1613.5	1616.1	14.3	1800.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1615.0	1616.1	12.0	830.0			QL=6 ST=2 TYP=5
28	245	LEAR	43	NS	2321.0	0128.8	610.0D	46.0			QL=6 ST=2 TYP=1
	4995	PALE	4	S/F	0244.6	0246.3	4.0	160.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0244.8	0246.1	2.8	630.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	0244.8	0246.6	3.8	110.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0245.0	0246.0	3.6	170.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0245.1	0246.0	2.2	510.0			QL=6 ST=2 TYP=5
	15400	PALE	4	S/F	0245.3	0246.0	2.5	100.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0245.5	0246.1	1.3	35.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0245.5	0246.8	2.6	38.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	0246.1	0246.6	.5D	13.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0319.0	0327.3	8.3	66.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	0319.6	0323.0	9.0	55.0			QL=6 ST=2 TYP=5
	606	PALE	4	S/F	0319.8	0322.3	6.0	119.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0320.1	0320.6	.5	17.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0320.1	0320.6	.7	16.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0321.8	0322.3	.8	38.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0323.0	0324.0	1.8	43.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0323.1	0323.3	.4	27.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	0323.3	0324.0	1.2	31.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0327.1	0327.3	.4	71.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0329.3	0329.5	1.3	20.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0330.1	0330.1	.2	33.0			QL=6 ST=2 TYP=3
	606	MANI	4	S/F	0344.3	0346.6	8.5D	15.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0344.5	0346.6	7.0D	180.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0344.6	0346.6	6.9D	110.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0344.8	0346.1	5.2	180.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0345.1	0346.6	6.4D	31.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0746.6	0747.6	4.0	110.0			QL=5 ST=2 TYP=3
	4995	MANI	4	S/F	0746.8	0747.8	3.7D	19.0			QL=6 ST=2 TYP=4
	8800	MANI	8	S	0747.1	0747.8	1.9	76.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0747.5	0749.8	3.1	160.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1036.6	1037.0	.9	49.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2214.8	2215.3	1.0	27.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2239.6	2240.5	3.2	88.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2259.3	2259.8	.8D	6.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	2259.3	2259.8	.8	24.0			QL=4 ST=2 TYP=3
29	4995	SGMR	49	GB	1041.0	1042.3	7.3D	800.0			QL=6 ST=2 TYP=7
	2695	SGMR	49	GB	1041.3	1042.1	8.7D	410.0			QL=6 ST=2 TYP=7
	245	SGMR	49	GB	1041.5	1041.8	3.3D	21000.0			QL=6 ST=2 TYP=7
	8800	SGMR	49	GB	1041.5	1042.3	7.3D	1000.0			QL=6 ST=2 TYP=7
	15400	SGMR	49	GB	1041.5	1042.3	902.8	480.0			QL=6 ST=2 TYP=7
	8800	ATHN	47	GB	1041.6	1042.3	4.9	1600.0			QL=6 ST=2 TYP=5
	1415	SGMR	49	GB	1041.6	1042.3	9.7D	290.0			QL=6 ST=2 TYP=7
	606	SGMR	49	GB	1041.6	1042.6	9.7D	110.0			QL=6 ST=2 TYP=7
	410	SGMR	49	GB	1041.8	1042.1	7.7D				QL=6 ST=2 TYP=7

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	4995	SGMR	8	S	1802.1	1802.3	.9D	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1802.1	1802.6	1.4D	11.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1802.1	1805.6	4.0	55.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1802.3	1802.3	.2D	43.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1802.3	1805.8	4.5D	23.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1822.3	1822.6	1.5	620.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1822.3	1822.6	6.7D	68.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	1822.3	1822.6	.7	640.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1822.3	1822.8	6.7	490.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1822.3	1822.8	6.7D	380.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1822.3	1823.1	2.3	119.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1822.3	1823.1	1.5	65.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1822.3	1823.3	2.7D	130.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1822.3	1823.3	2.7D	190.0			QL=6 ST=2 TYP=3
	2695	PALE	47	GB	1822.3	1823.3	5.5	190.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	1822.3	1823.6	7.0D	99.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	1822.3	1823.6	6.3	160.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	1822.5	1822.6	5.6	37.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	1822.6	1823.6	2.4D	119.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2021.8	2022.0	.3	27.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2026.6	2026.6	.2	53.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2047.3	2047.6	.3	20.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2144.3	2144.6	.5	119.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2144.3	2146.0	3.2D	13.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2145.1	2146.1	1.4D	200.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2145.3	2145.8	.8	270.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2145.6	2146.1	2.0D	17.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2145.8	2146.0	1.2D	20.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2145.8	2146.0	.3D	44.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2145.8	2146.0	.5	22.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2146.0	2146.1	.1	13.0			QL=6 ST=2 TYP=3
30	245	LEAR	43	NS	0030.0	0137.0	542.0D	38.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1635.0	2337.1	741.0D	66.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2322.0	0007.1	611.0D	54.0			QL=6 ST=2 TYP=1
	245	LEAR	4	S/F	0105.6	0113.1	18.5	119.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0114.0	0114.3	8.1	100.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	0420.6	0420.8	.4	139.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1334.3	1338.8	5.5D	27.0			QL=3 ST=2 TYP=3
	8800	ATHN	4	S/F	1334.5	1338.8	17.5	66.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1334.8	1339.0	5.0D	62.0			QL=3 ST=2 TYP=3
	8800	SGMR	4	S/F	1335.6	1339.0	4.9	60.0			QL=3 ST=2 TYP=3
	2695	ATHN	4	S/F	1336.6	1339.3	2.7D	39.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1337.0	1338.8	3.6D	44.0			QL=3 ST=2 TYP=3
	606	SGMR	8	S	1338.6	1338.6	.5D	42.0			QL=3 ST=2 TYP=3
	1415	ATHN	8	S	1338.8	1339.0	.3D	31.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1527.8	1528.3	1.3D	11.0			QL=3 ST=2 TYP=3
	4995	SGMR	8	S	1527.8	1528.3	1.3D	39.0			QL=3 ST=2 TYP=3
	8800	SGMR	8	S	1527.8	1528.6	1.8D	61.0			QL=3 ST=2 TYP=3
	15400	SGMR	8	S	1527.8	1528.6	1.8	9.0			QL=3 ST=2 TYP=3
	8800	ATHN	4	S/F	1527.8	1528.6	17.3	53.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1528.0	1528.5	2.1D	119.0			QL=3 ST=2 TYP=3
	1415	ATHN	4	S/F	1528.0	1528.6	2.1D	5.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1528.0	1528.6	7.0D	100.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2133.3	2133.6	1.0	20.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	245	SGMR	43	NS	0915.0	1441.6	904.0D	52.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1641.5	1646.1	457.5D	22.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2321.0	0519.1	612.0D	73.0			QL=6 ST=2 TYP=1
	8800	PALE	8	S	0144.8	0146.6	1.8D	11.0			QL=6 ST=2 TYP=3
	4995	SGMR	49	GB	1624.5	1627.8	13.8D	780.0			QL=6 ST=2 TYP=7
	8800	ATHN	47	GB	1625.1	1627.3	34.0	2600.0			QL=5 ST=2 TYP=5
	8800	SGMR	49	GB	1625.1	1627.3	12.9D	1399.0			QL=6 ST=2 TYP=7
	2695	SGMR	49	GB	1625.5	1627.8	13.3D	790.0			QL=6 ST=2 TYP=7
	15400	SGMR	49	GB	1626.0	1627.8	12.0	1300.0			QL=6 ST=2 TYP=7
	1415	SGMR	49	GB	1626.0	1628.3	11.5D	390.0			QL=6 ST=2 TYP=7
	606	SGMR	49	GB	1626.6	1627.1	16.4D	210.0			QL=6 ST=2 TYP=7
	410	SGMR	49	GB	1627.1	1628.1	14.4D	690.0			QL=6 ST=2 TYP=7
	245	SGMR	49	GB	1628.0	1629.0	16.0D	5200.0			QL=6 ST=2 TYP=7
02	15400	SGMR	4	S/F	1427.0	1429.5	6.6	22.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1429.3	1429.8	2.3D	11.0			QL=6 ST=2 TYP=3
03	245	LEAR	43	NS	0311.5	0354.1	381.5D	43.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1800.0	1902.5	379.0D	78.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2321.0	0318.8	612.0D	45.0			QL=6 ST=2 TYP=1
	8800	LEAR	8	S	0021.8	0022.0	.3D	86.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0021.8	0022.0	.3D	41.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0021.8	0022.0	.3D	29.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0021.8	0022.1	.3	55.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1253.5	1254.3	1.5	220.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1909.3	1909.6	.8D	260.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1909.3	1909.6	.7	24.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1909.6	1909.8	.4D	32.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2158.8	2159.1	.5	74.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2159.1	2159.3	.5D	450.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2159.3	2159.5	.3D	42.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2221.3	2221.6	.5D	310.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2221.6	2221.8	1.0	170.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2221.8	2222.0	.3D	96.0			QL=6 ST=2 TYP=3
04	245	LEAR	43	NS	2322.0	0142.3	612.0D	68.0			QL=6 ST=2 TYP=1
05	245	LEAR	43	NS	2322.0	0731.5	612.0D	170.0			QL=6 ST=2 TYP=1
	1415	MANI	47	GB	0014.5	0017.5	8.0D	270.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	0014.8	0019.8	8.5	43.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0015.3	0017.3	4.0	730.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	0015.3	0017.3	3.5	750.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0015.3	0017.3	4.8	210.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0015.6	0017.3	3.7	190.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0016.0	0020.5	5.6	150.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0016.1	0017.0	4.5	32.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0016.1	0017.3	6.4D	25.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0016.1	0018.5	3.5	64.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0016.3	0017.1	3.0	30.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0016.3	0018.6	3.7	85.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0016.3	0020.3	6.7D	25.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0016.3	0020.5	5.2	130.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0016.5	0020.0	5.1	29.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0016.5	0020.1	6.5	44.0			QL=6 ST=2 TYP=4
	4995	PALE	4	S/F	0018.5	0019.6	2.5	21.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0018.5	0019.8	2.8	27.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0018.5	0019.8	5.5	33.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0019.1	0019.6	3.0	28.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0158.6	0159.8	15.7	26.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0159.0	0159.6	20.8	40.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0159.0	0201.8	20.3	31.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0159.8	0200.1	9.8	15.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0201.3	0205.5	18.7	16.0			QL=6 ST=3 TYP=4
	8800	LEAR	4	S/F	0201.6	0203.8	18.4	16.0			QL=6 ST=3 TYP=4
	245	LEAR	47	GB	0201.6	0204.8	13.0	73.0			QL=6 ST=3 TYP=5
	2695	ATHN	4	S/F	0733.6	0742.6	16.9D	67.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0735.3	0742.6	15.7	70.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	0735.6	0737.5	14.5D	44.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0735.8	0738.6	18.8D	41.0			QL=6 ST=2 TYP=4
	606	MANI	47	GB	0735.8	0743.3	14.2D	1500.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
05	2695	MANI	4	S/F	0735.8	0743.6	14.2D	66.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0736.3	0743.8	13.0D	91.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0736.8	0738.6	8.2	57.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1549.1	1558.1	33.5D	11.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1550.0	1557.0	12.1D	17.0			QL=6 ST=2 TYP=4
	245	SGMR	4	S/F	1551.8	1555.8	12.2D	130.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1553.1	1557.6	31.4	27.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1553.6	1557.8	8.4D	31.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1555.0	1557.3	6.8D	20.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1555.0E	1557.3	4.5D	23.0			QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1555.0	1557.8	8.0D	7.0			QL=6 ST=2 TYP=4
	410	SGMR	4	S/F	1555.3	1557.3	9.7D	65.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1555.5	1557.8	3.6	13.0			QL=6 ST=2 TYP=4
	245	PALE	8	S	1853.8	1854.0	.3	43.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2219.8	2222.3	3.8D	150.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2220.1	2222.3	3.4D	18.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2221.0	2221.5	2.0	18.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	2234.1	2244.8	19.5D	960.0			QL=6 ST=2 TYP=5
	4995	MANI	4	S/F	2234.8	2240.1	11.0D	50.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	2234.8	2242.6	12.5	58.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	2235.6	2239.8	11.7D	110.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	2236.0	2246.1	21.0	1300.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	2245.1	2245.1	2.5	200.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2245.1	2245.3	3.0	770.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	2245.1	2245.6	1.7	32.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	2245.1	2245.8	2.4	950.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2245.1	2246.0	6.7	210.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2245.1	2250.1	9.0	43.0			QL=6 ST=3 TYP=5
	4995	PALE	47	GB	2245.1	2250.5	5.7	20.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2246.8	2248.1	7.2	73.0			QL=6 ST=3 TYP=5
06	4995	MANI	4	S/F	0417.8	0421.0	8.5	37.0			QL=6 ST=2 TYP=4
	1415	ATHN	47	GB	0418.0	0419.8	7.5D	540.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	0418.0	0419.8	6.8	19.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0418.0	0420.6	7.0D	119.0			QL=6 ST=2 TYP=3
	1415	LEAR	47	GB	0418.1	0419.8	5.5	680.0			QL=6 ST=3 TYP=5
	606	LEAR	4	S/F	0418.1	0420.6	3.5	190.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0418.3	0420.5	2.5	119.0			QL=6 ST=3 TYP=3
	1415	MANI	47	GB	0418.6	0420.8	6.7D	740.0			QL=6 ST=2 TYP=5
	2695	MANI	4	S/F	0418.6	0421.3	6.5D	119.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0419.5	0419.8	2.3	84.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0419.6	0419.8	2.4	26.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0419.6	0419.8	2.5	38.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0420.1	0421.3	1.9	84.0			QL=6 ST=3 TYP=3
	8800	ATHN	47	GB	0438.0	0444.3	18.8	670.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0439.3	0444.1	12.5	520.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	0439.5	0444.1	7.8	270.0			QL=6 ST=3 TYP=3
	8800	MANI	47	GB	0440.1	0445.0	13.2	520.0			QL=6 ST=2 TYP=5
	15400	PALE	8	S	0440.6	0444.1	3.5D	450.0			QL=6 ST=3 TYP=3
	2695	PALE	8	S	0440.6	0444.1	3.5D	92.0			QL=6 ST=3 TYP=3
	8800	PALE	8	S	0440.6	0444.1	3.5D	390.0			QL=6 ST=3 TYP=3
	4995	PALE	8	S	0440.6	0444.3	3.7D	230.0			QL=6 ST=3 TYP=3
	606	PALE	8	S	0441.1	0443.6	2.5D	260.0			QL=6 ST=3 TYP=3
	245	PALE	8	S	0441.1	0444.6	3.5D	230.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0441.1	0445.8	6.5	410.0			QL=6 ST=3 TYP=3
	15400	LEAR	4	S/F	0441.3	0444.1	9.8	390.0			QL=6 ST=3 TYP=3
	410	PALE	8	S	0441.6	0443.3	1.7D	230.0			QL=6 ST=3 TYP=3
	1415	PALE	8	S	0441.6	0443.6	2.0D	190.0			QL=6 ST=3 TYP=3
	606	LEAR	47	GB	0441.6	0445.6	6.2	960.0			QL=6 ST=3 TYP=5
	1415	LEAR	4	S/F	0441.8	0443.6	5.5	230.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0441.8	0444.1	4.8	95.0			QL=6 ST=3 TYP=3
	410	LEAR	47	GB	0441.8	0446.1	6.2	600.0			QL=6 ST=3 TYP=5
	1415	LEAR	8	S	0612.1	0616.1	4.0D	170.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0932.8	0934.6	2.0	18.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2013.3	2014.6	4.0D	30.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2013.5	2014.0	5.5D	47.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2013.5	2014.6	2.5	25.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2013.6	2014.1	1.2	47.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2013.6	2014.3	1.5	38.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2013.6	2014.6	3.9	26.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1980

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
06	2695	SGMR	4 S/F	2013.6	2014.6	4.4D	35.0			QL=6 ST=2 TYP=3
	606	PALE	8 S	2013.8	2014.1	.3	36.0			QL=6 ST=2 TYP=3
	410	SGMR	4 S/F	2013.8	2018.1	5.2D	139.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	2013.8	2018.3	5.2D	39.0			QL=6 ST=2 TYP=3
	245	SGMR	8 S	2014.1	2014.3	.4D	42.0			QL=6 ST=2 TYP=3
	4995	PALE	8 S	2014.1	2014.5	.7	19.0			QL=6 ST=2 TYP=3
	410	PALE	4 S/F	2016.5	2017.8	2.1	240.0			QL=6 ST=2 TYP=3
	606	PALE	8 S	2018.1	2018.3	.4	28.0			QL=6 ST=2 TYP=3
	1415	PALE	8 S	2018.1	2018.3	.2	20.0			QL=6 ST=3 TYP=3
	1415	SGMR	4 S/F	2140.5	2142.8	5.3D	32.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	2141.0	2145.1	4.5D	56.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	2141.6	2142.8	4.9	17.0			QL=6 ST=2 TYP=3
07	410	PALE	43 NS	1635.0	1912.1	741.0D	56.0			QL=6 ST=2 TYP=1
	245	PALE	43 NS	1635.0	2104.3	741.0D	450.0			QL=6 ST=2 TYP=1
	245	SGMR	43 NS	1640.1	1817.0	457.9D	57.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2321.0						QL=6 ST=3 TYP=1
	1415	PALE	8 S	0102.6	0103.0	.4D	23.0			QL=6 ST=2 TYP=3
	2695	PALE	8 S	0102.6	0103.0	.4D	19.0			QL=6 ST=2 TYP=3
	1415	ATHN	4 S/F	1141.1	1143.6	3.7D	18.0			QL=6 ST=2 TYP=4
	8800	ATHN	4 S/F	1141.6	1150.6	16.5	46.0			QL=6 ST=2 TYP=4
	2695	ATHN	4 S/F	1142.0	1143.6	15.5D	4.0			QL=6 ST=2 TYP=4
	245	SGMR	47 GB	1143.0	1143.1	10.3	150.0			QL=6 ST=2 TYP=5
	245	SGMR	47 GB	1354.0	1356.6	12.0	320.0			QL=6 ST=2 TYP=5
	8800	ATHN	4 S/F	1355.0	1355.6	3.1	51.0			QL=6 ST=2 TYP=3
	1415	ATHN	4 S/F	1355.1	1355.8	4.2D	11.0			QL=6 ST=2 TYP=4
	2695	ATHN	4 S/F	1355.3	1355.8	2.8D	8.0			QL=6 ST=2 TYP=4
	1415	ATHN	4 S/F	1401.1	1404.1	11.0D	28.0			QL=6 ST=2 TYP=4
	2695	ATHN	4 S/F	1401.6	1404.3	8.2D	29.0			QL=6 ST=2 TYP=4
	8800	ATHN	4 S/F	1402.5	1404.3	6.3	80.0			QL=6 ST=2 TYP=4
	245	SGMR	47 GB	1613.8	1615.5	5.5	570.0			QL=6 ST=2 TYP=5
	606	SGMR	4 S/F	1751.0	1753.8	9.6D	35.0			QL=6 ST=2 TYP=3
	1415	SGMR	4 S/F	1751.5	1752.1	7.6D	22.0			QL=6 ST=2 TYP=3
	410	SGMR	47 GB	1751.5	1758.1	10.1D	360.0			QL=6 ST=2 TYP=5
	245	PALE	47 GB	1751.6	1751.8	2.7	1600.0			QL=6 ST=2 TYP=5
	15400	SGMR	4 S/F	1751.8	1753.1	5.5	26.0			QL=6 ST=2 TYP=3
	8800	SGMR	4 S/F	1751.8	1753.1	9.5D	47.0			QL=6 ST=2 TYP=3
	8800	PALE	47 GB	1751.8	1753.1	3.2	43.0			QL=6 ST=2 TYP=5
	4995	SGMR	4 S/F	1751.8	1753.6	9.0D	16.0			QL=6 ST=2 TYP=3
	2695	SGMR	4 S/F	1751.8	1754.0	8.7D	15.0			QL=6 ST=2 TYP=3
	410	PALE	47 GB	1752.6	1753.8	6.0	490.0			QL=6 ST=2 TYP=5
	4995	PALE	47 GB	1752.8	1753.5	1.3	17.0			QL=6 ST=2 TYP=5
	1415	PALE	47 GB	1752.8	1753.8	1.5	20.0			QL=6 ST=2 TYP=5
	606	PALE	47 GB	1753.1	1753.8	1.0	36.0			QL=6 ST=2 TYP=5
	2695	PALE	47 GB	1753.6	1753.8	.5	18.0			QL=6 ST=2 TYP=5
	15400	PALE	47 GB	1754.1	1754.8	1.2	38.0			QL=6 ST=2 TYP=5
	245	SGMR	8 S	2104.1	2104.3	.9	460.0			QL=6 ST=2 TYP=3
	606	SGMR	8 S	2104.3	2104.3	.2D	40.0			QL=6 ST=2 TYP=3
	4995	PALE	47 GB	2343.8	2344.3	.8	16.0			QL=6 ST=2 TYP=5
08	245	SGMR	43 NS	0918.0	2103.1	899.0D	160.0			QL=6 ST=2 TYP=1
	606	LEAR	8 S	0052.3	0052.5	.7	180.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0052.3	0052.5	.7	70.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0052.3	0052.6	1.0	85.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0242.1	0242.1	.2	180.0			QL=6 ST=2 TYP=3
	606	LEAR	8 S	0242.1	0242.1	.2	30.0			QL=6 ST=2 TYP=3
	606	SGMR	49 GB	1920.0	1922.0	5.1D	470.0			QL=6 ST=2 TYP=7
	8800	SGMR	49 GB	1920.0	1922.0	5.0D	900.0			QL=6 ST=2 TYP=7
	15400	SGMR	49 GB	1920.0	1922.0	5.0	1000.0			QL=6 ST=2 TYP=7
	410	SGMR	49 GB	1920.0	1922.1	5.1D	950.0			QL=6 ST=2 TYP=7
	245	SGMR	49 GB	1920.0	1922.3	5.0D	1100.0			QL=6 ST=2 TYP=7
	1415	SGMR	49 GB	1920.1	1922.1	5.0D	230.0			QL=6 ST=2 TYP=7
	2695	SGMR	49 GB	1920.1	1922.1	5.0D	200.0			QL=6 ST=2 TYP=7
	4995	SGMR	49 GB	1920.1	1922.1	4.9D	500.0			QL=6 ST=2 TYP=7
	1415	PALE	47 GB	2007.8	2008.0	2.2	11.0			QL=6 ST=2 TYP=5
	410	PALE	47 GB	2007.8	2008.8	3.0	38.0			QL=6 ST=2 TYP=5
	606	PALE	47 GB	2008.0	2009.0	3.0	57.0			QL=6 ST=2 TYP=5
	15400	PALE	47 GB	2008.8	2010.0	1.5	59.0			QL=6 ST=2 TYP=5
	2695	PALE	47 GB	2009.0	2010.1	1.3	23.0			QL=6 ST=2 TYP=5
	8800	PALE	47 GB	2009.8	2010.0	.3	31.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
08	4995	PALE	47	GB	2009.8	2010.0	.3	25.0			QL=6 ST=2 TYP=5
	410	PALE	8	S	2013.8	2013.8	.2	170.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2058.8	2059.0	.7	32.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2157.8	2158.0	.5	40.0			QL=6 ST=3 TYP=3
	8800	PALE	8	S	2157.8	2158.0	.3	36.0			QL=6 ST=3 TYP=3
	2695	PALE	8	S	2157.8	2158.0	.5	27.0			QL=6 ST=3 TYP=3
09	245	SGMR	43	NS	0920.0	1247.6	897.0D	510.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1635.0	0112.5	740.0D	360.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2321.0	0112.5	614.0D	320.0			QL=6 ST=2 TYP=1
	4995	PALE	8	S	0005.3	0005.8	1.0	29.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0005.6	0005.8	.2	11.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0005.6	0005.8	.4	19.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0005.6	0005.8	.4	22.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0110.3	0111.3	3.5	590.0			QL=5 ST=2 TYP=5
	410	LEAR	47	GB	0111.1	0111.5	1.0	580.0			QL=5 ST=2 TYP=5
	245	PALE	47	GB	0111.6	0111.6	.2	760.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0111.6	0111.6	.2	1100.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0214.6	0214.8	.7	4500.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0214.8	0214.8	1.0	4800.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0214.8	0214.8	1.3	2300.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0214.8	0214.8	.5	4200.0			QL=6 ST=2 TYP=5
	606	PALE	8	S	0215.1	0215.1	.4	40.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0658.1	0659.1	1.5	59.0			QL=3 ST=2 TYP=3
	410	LEAR	8	S	0658.1	0659.1	1.5	38.0			QL=3 ST=2 TYP=3
	245	LEAR	8	S	0659.0	0659.3	1.1	73.0			QL=3 ST=2 TYP=3
	245	SGMR	4	S/F	1157.1	1157.3	2.9	27.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1158.1	1159.3	1.7D	16.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1219.1	1221.1	6.2	119.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1220.3	1221.3	6.8D	37.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1220.5	1221.5	3.8D	10.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1220.6	1221.1	3.7D	25.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1220.8	1221.0	6.3D	40.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1220.8	1221.1	6.3D	130.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1221.0	1221.1	4.0D	11.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1514.1	1516.1	3.9D	310.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1514.1	1516.3	4.4D	280.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1514.3	1516.1	4.0	76.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1514.5	1517.3	6.8D	85.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1514.6	1514.8	7.2D	48.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1514.6	1516.3	6.7	61.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1514.6	1516.3	7.4D	40.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1514.8	1516.3	4.5D	87.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1514.8	1517.1	7.2D	46.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1515.6	1516.3	2.0D	850.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	1516.0	1517.0	5.8D	34.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2157.1	2157.3	1.4D	11.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	2157.3	2157.3	.3	670.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	2157.3	2157.3	1.2D	20.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2157.3	2157.5	1.2	340.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2203.5	2204.6	1.5D	8.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2203.5	2204.6	1.5D	33.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2204.3	2204.5	1.0D	45.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2204.3	2204.6	1.0D	45.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	2204.3	2204.6	1.2	74.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2204.3	2204.6	.5	50.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2204.3	2204.6	.5	60.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2204.3	2204.6	.5	23.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2204.3	2204.6	.5	100.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2204.3	2204.6	1.3D	100.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2204.3	2204.6	.5	90.0			QL=6 ST=2 TYP=3
10	245	SGMR	43	NS	0920.0	2156.5	897.0D	350.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1330.0	1957.1	647.0D	50.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1640.0	1822.8	735.0D	130.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2321.0	0624.1	616.0D	220.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0241.3	0242.1	1.8	119.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	0241.6	0242.1	.7	119.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0241.6	0242.1	1.2D	31.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	0246.8	0247.3	1.5	36.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	410	PALE	8	S	0355.8	0356.5	1.2	46.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0501.1	0502.6	1.7D	96.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0501.3	0502.6	1.3	210.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0618.1	0618.3	1.0	290.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0618.1	0618.5	1.0	19.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0618.1	0618.6	.7	46.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0618.1	0618.6	1.0	390.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0618.6	0618.8	.5	150.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1103.1	1103.5	5.0	310.0			QL=5 ST=2 TYP=3
	245	SGMR	47	GB	1103.1	1103.6	3.7	6500.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	1103.3	1103.6	4.0D	15.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	1103.3	1103.6	4.8D	47.0			QL=5 ST=2 TYP=3
	606	SGMR	8	S	1301.8	1302.1	1.3D	37.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1301.8	1302.1	1.3D	74.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1302.0	1302.3	1.1	68.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1302.0	1303.0	1.1D	44.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1426.0	1426.1	.3	27.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1426.0	1426.1	.6D	100.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1426.0	1426.3	1.5D	1500.0			QL=6 ST=2 TYP=5
11	245	SGMR	43	NS	0921.0	1853.0	895.0D	79.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1634.0	0212.8	741.0D	73.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1741.0	1859.0	93.0	13.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1822.8	1913.1	353.2D	37.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2321.0	0224.6	616.0D	72.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0619.6	0620.3	1.4	600.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	1051.8	1053.3	2.5	50.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	1052.1	1053.3	3.2D	19.0			QL=5 ST=2 TYP=3
	1415	ATHN	4	S/F	1053.0	1053.5	2.1D	11.0			QL=5 ST=2 TYP=3
	4995	SGMR	4	S/F	1250.3	1250.8	7.7D	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1250.6	1250.8	6.4D	9.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1250.8	1255.8	6.2D	16.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1252.8	1253.0	.7	5.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1513.1	1513.8	2.5D	8.0			QL=5 ST=2 TYP=3
	2695	SGMR	8	S	1513.3	1513.6	1.3D	20.0			QL=6 ST=3 TYP=3
	4995	SGMR	8	S	1513.3	1513.6	2.0D	20.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1513.3	1513.8	.7D	32.0			QL=6 ST=3 TYP=3
	2695	ATHN	4	S/F	1513.3	1513.8	2.8	46.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1513.5	1513.8	2.3	23.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1513.6	1513.8	.5D	11.0			QL=6 ST=3 TYP=3
	8800	SGMR	8	S	1513.6	1513.8	.9	9.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1641.1	1641.5	4.0D	16.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1641.5	1643.5	4.3D	24.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1641.8	1643.6	4.0	26.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	1839.8	1842.1	3.8	95.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1850.5	1858.3	14.3D	270.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1850.6	1858.6	13.5D	190.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1851.1	1858.6	11.9D	100.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1852.1	1858.3	9.5	200.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1856.5	1857.8	5.6D	160.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1857.6	1859.1	3.7D	35.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1857.8	1900.8	4.5D	190.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2208.0	2216.1	12.0D	480.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2208.3	2216.1	11.7D	100.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	2208.5	2216.1	11.5D	200.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	2211.3	2211.8	.8	23.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2211.3	2212.0	.8	31.0			QL=6 ST=2 TYP=5
	606	SGMR	47	GB	2211.3	2216.3	6.5D	17000.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	2211.8	2211.8	.3	22.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2211.8	2212.0	.2	18.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2214.1	2216.1	2.5	1100.0			QL=6 ST=2 TYP=5
	410	PALE	4	S/F	2214.1	2216.1	2.5	300.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	2215.5	2216.3	2.1	390.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	2215.8	2216.3	2.2	260.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2215.8	2216.3	6.0	530.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	2215.8	2216.3	2.3	160.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2215.8	2216.3	1436.2	490.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	2215.8	2216.5	3.0D	62.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	2216.0	2216.1	.8	27000.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	2216.0	2216.3	1.6	57.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	245	SGMR	43	NS	0923.0	1741.8	892.0D	31.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2342.0	0550.6	595.0D	100.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	1109.3	1110.1	16.8	67.0			QL=5 ST=2 TYP=3
	15400	SGMR	4	S/F	1109.6	1110.0	3.4	33.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1109.6	1110.1	3.4D	42.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1109.8	1110.3	3.2D	65.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1341.3	1343.1	4.5	74.0			QL=5 ST=2 TYP=3
	8800	SGMR	8	S	1342.3	1343.1	.8D	52.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1342.8	1343.1	1.3D	25.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1342.8	1343.1	.3D	30.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1342.8	1343.1	4.5D	26.0			QL=5 ST=2 TYP=3
	15400	SGMR	8	S	1342.8	1343.1	1.0D	70.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1343.0	1343.1	.3	65.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1541.0	1541.6	9.0D	660.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1541.0	1541.8	9.0D	350.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1541.0	1541.8	9.0	100.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1542.1	1543.5	7.5	920.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1735.0	1736.3	4.5D	82.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1735.1	1736.1	3.4	170.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1735.3	1736.3	1.8	220.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1735.5	1736.3	1.3	85.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1735.5	1736.3	3.6D	119.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1735.8	1736.3	1.3	70.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	1735.8	1736.5	1.5	39.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1736.1	1736.6	2.7D	43.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1821.3	1824.0	5.0D	26.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1821.5	1824.1	3.8D	19.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1821.6	1823.0	4.2D	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1821.8	1824.1	4.7	23.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1822.0	1822.3	.6D	100.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2043.0	2043.8	1.1	5.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2043.1	2043.8	1.0D	27.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2043.3	2043.8	.8	30.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	2043.8	2043.8	.3D	45.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2043.8	2043.8	.3	9.0			QL=6 ST=2 TYP=3
13	15400	LEAR	8	S	0113.8	0114.1	1.0	110.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	0113.8	0114.3	1.0	100.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0113.8	0114.3	1.2	91.0			QL=6 ST=2 TYP=3
	15400	PALE	47	GB	0114.0	0114.3	.5	130.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	0114.1	0114.3	.4	22.0			QL=6 ST=2 TYP=5
	2695	LEAR	8	S	0114.1	0114.3	.2	22.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0114.1	0114.3	.2	33.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	0114.1	0114.3	.2	33.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	0604.1	0605.8	2.7	40.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0604.8	0605.8	1.3	23.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0604.8	0605.8	1.3	34.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0605.6	0605.6	.2	23.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0605.6	0605.8	.2	86.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0605.8	0605.8	.3	16.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1712.5	1719.6	15.0D	44.0			QL=5 ST=2 TYP=4
	2695	SGMR	8	S	1717.1	1718.1	2.0	40.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1717.3	1717.8	1.8D	100.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1717.3	1718.0	2.7D	84.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1717.3	1718.1	2.3D	150.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1717.6	1717.8	1.9	119.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1717.6	1718.0	5.2	170.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1717.6	1718.1	1.9	81.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1717.8	1718.1	9.3	150.0			QL=5 ST=2 TYP=3
	2695	PALE	8	S	1717.8	1718.1	1.3	40.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1717.8	1725.0	11.2D	41.0			QL=5 ST=2 TYP=4
	4995	SGMR	4	S/F	1759.8	1800.8	2.2D	13.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1800.0	1801.0	2.1	20.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1917.0	1917.3	1.8D	54.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1917.1	1917.3	4.9	69.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1917.8	1918.1	1.3D	23.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1917.8	1918.1	2.0D	69.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	2157.3	2159.1	3.3	41.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2158.8	2159.1	1.3	32.0			QL=6 ST=2 TYP=5
14	245	LEAR	43	NS	0014.0	0313.8	563.0D	39.0			QL=6 ST=2 TYP=1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	245	SGMR	43	NS	0923.0	1332.8		86.0			QL=6 ST=3 TYP=1
	8800	LEAR	8	S	0042.3	0042.8	1.8	40.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0042.5	0042.8	1.6	29.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	0042.6	0042.8	.4	29.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	0042.6	0042.8	.5	33.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0746.1	0748.6	3.0	17.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0746.1	0750.6	9.4	25.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0746.3	0751.8	7.7	27.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0823.0	0825.3	13.1	430.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0823.3	0825.3	8.7	260.0			QL=6 ST=2 TYP3
	2695	ATHN	4	S/F	0823.8	0826.0	12.3D	61.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0824.0	0825.3	5.3	119.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0824.1	0825.5	6.7D	94.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0824.6	0825.8	6.7	150.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0824.6	0826.0	1.7	67.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0825.0	0825.3	1.3	130.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0825.0	0825.8	.8	39.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2308.6	2309.1	.7	1300.0			QL=6 ST=2 TYP=5
15	245	SGMR	44	NS	0924.0E	1051.1	87.1D	75.0			QL=6 ST=3 TYP=1
	245	PALE	43	NS	1642.0	2157.1	733.0D	200.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2320.0	0445.8	619.0D	29.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2320.0	0500.1	619.0D	94.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	2320.0	0634.1	619.0D	43.0			QL=6 ST=2 TYP=1
	8800	LEAR	4	S/F	0844.8	0845.3	2.7	23.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0844.8	0845.3	1.5	18.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0844.8	0845.3	2.5	16.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0845.0	0845.3	1.0	91.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0845.1	0845.3	.4	27.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0855.0	0855.1	.1	23.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0855.1	0855.1	.2	19.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0855.1	0855.1	.2	82.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	0953.0	0953.1	.3	60.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	0953.1	0953.1	.4	170.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1106.5	1107.0	1.6	36.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1106.8	1107.1	1.2D	139.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1456.3	1456.6	.8D	2300.0			QL=6 ST=2 TYP=5
	606	SGMR	8	S	1457.3	1457.5	.3	18.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1612.1	1612.1	.2	37.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1612.3	1612.5	.3D	48.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1615.1	1615.3	.5D	60.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1615.1	1615.3	.5	46.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1825.1	1826.1	3.9D	37.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1825.1	1827.0	6.4D	119.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1825.5	1826.1	4.8D	130.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	1826.5	1828.0	2.5	100.0			L=6 ST=2 TYP=5
	8800	PALE	47	GB	1826.6	1827.1	1.9	100.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	1826.8	1827.1	1.7	48.0			QL=6 ST=2 TYP=5
	15400	SGMR	4	S/F	1827.0	1828.1	2.5	35.0			QL=6 ST=2 TYP=3
	15400	PALE	47	GB	1827.1	1828.0	1.2	37.0			QL=6 ST=2 TYP=5
	4995	PALE	4	S/F	2247.1	2247.8	2.2	22.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2247.1	2248.0	1.7D	34.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2247.1	2248.0	1.7	21.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2247.1	2248.0	1.2	20.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2247.5	2248.0	.6D	16.0			QL=4 ST=2 TYP=3
16	410	SGMR	43	NS	0925.0	1313.3	888.0D	36.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	0925.0	1337.5	888.0D	67.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0925.0	2009.8	888.0D	290.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1730.3	2209.3	680.7D	110.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1850.8	1851.6	1.3	40.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2320.0	0445.8	619.0D	29.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2320.0	0500.1	619.0D	94.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	2320.0	0634.1	619.0D	43.0			QL=6 ST=2 TYP=1
	8800	PALE	8	S	0204.6	0204.8	1.0	80.0			QL=1 ST=2 TYP=3
	410	PALE	8	S	0341.8	0342.0	.3	22.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0341.8	0342.0	.3	22.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1422.3	1423.5	2.3D	8.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1422.5	1422.8	.5D	56.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1422.8	1423.5	1.8	16.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	606	SGMR	4	S/F	1505.8	1511.1	6.5D	250.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1505.8	1511.1	10.8D	250.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1510.1	1510.8	3.7D	21.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1510.3	1511.0	2.0D	59.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1510.5	1511.0	2.3D	21.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1510.6	1510.8	1.7	24.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2029.1	2030.8	3.5D	20.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2029.8	2031.6	1.8D	119.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2030.0	2031.0	5.6	110.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2030.0	2032.1	2.1D	17.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2030.1	2031.1	1.9D	11.0			QL=6 ST=2 TYP=4
	1415	PALE	4	S/F	2030.3	2030.8	2.3	119.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2030.3	2030.8	1.8D	97.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2030.3	2031.1	1.7	18.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2030.5	2032.6	2.1D	16.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2339.6	2339.6	.2	38.0			QL=6 ST=2 TYP=3
17	245	SGMR	43	NS	0926.0	1355.1	886.0D	380.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0926.0	1933.8	886.0D	38.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0539.6	0559.1	32.4	1199.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0541.3	0559.0	51.7	330.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0542.0	0601.0	49.0	200.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	0545.3	0549.5	6.2D	45.0			QL=2 ST=2 TYP=3
	2695	LEAR	47	GB	0545.8	0559.1	47.2	300.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0546.0	0605.5	47.0	440.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0546.1	0549.6	6.5	55.0			QL=2 ST=2 TYP=3
	2695	ATHN	4	S/F	0548.1	0549.3	2.4D	44.0			QL=2 ST=2 TYP=3
	2695	ATHN	4	S/F	0554.5	0559.5	29.1D	290.0			QL=2 ST=2 TYP=3
	8800	ATHN	4	S/F	0555.5	0559.3	35.5	180.0			QL=2 ST=2 TYP=3
	1415	ATHN	4	S/F	0555.6	0605.6	24.5D	440.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0557.0	0605.1	33.0	67.0			QL=6 ST=3 TYP=4
	4995	LEAR	4	S/F	0557.0	0605.8	33.0	79.0			QL=6 ST=2 TYP=4
	15400	LEAR	4	S/F	0601.0	0621.0	29.5	42.0			QL=6 ST=2 TYP=4
	245	LEAR	47	GB	0650.1	0651.1	5.9	1000.0			QL=6 ST=3 TYP=5
	606	LEAR	8	S	0650.6	0651.1	.7	72.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	1751.1	1751.5	.5	39.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1751.3	1752.0	.8	29.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1754.0	1754.3	.6	230.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1754.0	1754.3	.6	62.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	1754.0	1754.3	.6	34.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1754.1	1754.3	.5D	47.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1754.1	1754.3	.2	25.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1754.1	1754.3	.7D	220.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1931.0	1931.1	.3	110.0			QL=6 ST=2 TYP=3
18	245	SGMR	43	NS	0927.0	1336.8	885.0D	510.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0927.0	1956.1	885.0D	210.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1640.0	0158.8	738.0D	920.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1640.0	2032.8	738.0D	150.0			QL=6 ST=2 TYP=1
	606	LEAR	43	NS	2319.0	0421.6	621.0D	69.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	2319.0	0524.6	621.0D	200.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2319.0	0547.8	621.0D	1100.0			QL=6 ST=3 TYP=1
	606	LEAR	8	S	0454.6	0455.1	1.0	38.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0454.8	0455.0	.7	320.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0454.8	0455.3	2.3	94.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0655.3	0655.5	.3	20.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0655.3	0655.5	.3	20.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	1946.0	1946.1	.1D	510.0			QL=6 ST=3 TYP=5
	245	PALE	8	S	1947.1	1947.1	.1D	82.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	2022.0	2029.8	15.6D	68.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2023.3	2028.1	14.2D	240.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2023.6	2028.0	13.5	380.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2301.5	2303.3	3.0	940.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2302.6	2302.8	.5	840.0			QL=6 ST=2 TYP=5
19	410	SGMR	43	NS	0928.0	1025.3	883.0D	380.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	0928.0	1655.8	883.0D	37.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0928.0	1905.8	883.0D	580.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1640.0	1700.5	730.0D	660.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1640.0	1901.1	730.0D	400.0			QL=6 ST=2 TYP=1

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
19	606	PALE	43	NS	1640.0	1904.1	730.0D	45.0			QL=6 ST=2 TYP=1
	4995	LEAR	8	S	0007.3	0007.6	.7	30.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0007.6	0007.6	.2	19.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0157.8	0158.8	3.3	710.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0216.3	0216.6	10.2	660.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0217.8	0218.0	2.5	53.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0218.1	0218.3	3.2	24.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1321.0	1321.3	3.8D	93.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1321.0	1323.0	2.3D	40.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1321.1	1321.5	2.9D	170.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	1321.1	1321.6	1.7	11.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1529.8	1530.3	2.8	1800.0			QL=6 ST=3 TYP=5
	2695	SGMR	4	S/F	1709.5	1710.8	2.6	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2103.3	2103.8	1.0	16.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	2103.8	2106.5	4.5D	33.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	2104.0	2104.1	.3D	8.0			QL=6 ST=2 TYP=3
20	245	SGMR	43	NS	0929.0	1509.6	881.0D	770.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	0929.0	1509.6	881.0D	770.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2318.0	0021.6	623.0D	139.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2318.0	0021.6	623.0D	330.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0608.0	0608.3	.3	23.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0756.0	0756.1	.3	85.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0756.1	0756.1	.5	110.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0817.0	0818.3	7.8D	24.0			QL=5 ST=2 TYP=3
	1415	ATHN	4	S/F	0817.0	0818.5	8.6D	25.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	0817.1	0818.3	4.9	36.0			QL=5 ST=2 TYP=3
	8800	LEAR	8	S	0817.6	0818.1	1.0	35.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0817.6	0818.3	1.4	30.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0817.8	0818.1	.5	27.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0817.8	0818.1	.5	32.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1217.5	1218.8	4.5	10.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1217.6	1219.6	3.5D	11.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1217.8	1218.5	3.0D	430.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1217.8	1220.1	3.0D	49.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1219.0	1219.1	5.1D	34.0			QL=6 ST=3 TYP=3
	2695	ATHN	4	S/F	1219.0	1219.8	4.1	8.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1219.1	1219.3	3.2D	25.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1219.1	1219.8	65.0D	9.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1922.6	1925.1	4.7D	139.0			QL=6 ST=3 TYP=3
	2695	SGMR	4	S/F	1922.8	1925.1	3.5D	83.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1923.8	1925.3	4.8D	33.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1924.1	1925.1	3.0D	53.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1924.1	1925.1	2.5	119.0			QL=6 ST=3 TYP=3
	2695	PALE	47	GB	1924.3	1925.1	1.7	78.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1924.6	1925.0	.7	170.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	1924.6	1925.1	1.0	110.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1924.6	1925.1	1.0D	95.0			QL=6 ST=3 TYP=3
	1415	PALE	47	GB	1924.6	1925.3	1.5	50.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1925.0	1925.1	.3	65.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	1925.1	1925.1	.5	32.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2237.3	2237.5	.5	940.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	2254.1	2256.0	6.2D	24.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2254.1	2257.8	5.4D	29.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2254.3	2254.6	3.7	260.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2255.3	2257.1	3.2D	45.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2255.3	2257.1	3.0D	47.0			QL=6 ST=2 TYP=3
21	410	SGMR	43	NS	0929.0	1022.3	880.0D	33.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0929.0	2236.3	880.0D	400.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1640.0	0109.1	735.0D	360.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1640.0	1920.0	735.0D	55.0			QL=6 ST=2 TYP=1
	245	PALE	8	S	0018.1	0018.6	.7	80.0			QL=5 ST=2 TYP=3
	410	PALE	8	S	0018.3	0018.6	.5	40.0			QL=5 ST=2 TYP=3
	606	PALE	8	S	0018.3	0018.6	.5	75.0			QL=5 ST=2 TYP=3
	245	LEAR	47	GB	0123.1	0125.1	6.5	87.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0253.6	0255.3	7.5	480.0			QL=6 ST=2 TYP=3
	4995	LEAR	47	GB	0253.6	0256.1	7.5	260.0			QL=6 ST=2 TYP=5
	4995	PALE	4	S/F	0253.6	0256.1	4.0	270.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0253.8	0253.8	7.3	300.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
21	410	PALE	4	S/F	0253.8	0254.1	3.5	160.0			QL=6 ST=2 TYP=3
	2695	LEAR	47	GB	0253.8	0256.1	7.3	170.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0253.8	0256.1	7.3	970.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	0253.8	0256.1	4.0	960.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	0254.5	0256.1	2.8	180.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	0254.5	0256.3	3.6	320.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0254.6	0256.3	6.5	1100.0			QL=6 ST=2 TYP=5
	245	PALE	8	S	0255.0	0255.1	2.0	590.0			QL=6 ST=2 TYP=3
	15400	PALE	47	GB	0255.0	0256.3	2.8	1199.0			QL=6 ST=2 TYP=5
	1415	LEAR	47	GB	0255.1	0256.3	6.0	300.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	0255.1	0256.3	1.9	70.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0255.3	0256.3	5.8	94.0			QL=6 ST=2 TYP=5
	606	PALE	8	S	0255.8	0256.3	1.3	88.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0328.3	0328.3	.5	43.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0328.3	0328.5	.3	85.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0328.3	0328.5	.3	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0656.3	0656.6	.5	250.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0656.5	0656.6	.5	34.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1042.6	1044.1	3.2	270.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1043.8	1044.6	1.3D	17.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1248.6	1249.1	1.2D	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1248.8	1249.1	1.0	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1248.8	1249.1	.5D	4.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1250.8	1251.1	2.5	720.0			QL=6 ST=2 TYP=5
	606	SGMR	8	S	1434.6	1435.0	.5D	31.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1434.8	1435.1	1.2	45.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1515.1	1517.3	4.2D	10.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1515.5	1517.3	3.6	18.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1515.6	1515.8	2.9D	39.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1916.5	1920.1	5.8D	55.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1918.0	1920.8	3.6	16.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1918.1	1921.0	4.0D	54.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1919.0	1921.0	5.5D	67.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1919.1	1920.8	5.4D	40.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1919.6	1920.0	1.0D	43.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1919.6	1921.3	3.5D	85.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	1920.5	1921.0	2.1	57.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	1920.5	1921.0	2.0	31.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1920.5	1921.1	2.0	50.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	1920.8	1921.0	.2	23.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2236.1	2236.3	.9	900.0			QL=5 ST=2 TYP=5
22	410	SGMR	43	NS	0930.0	1407.0	878.0D	48.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0930.0	1707.3	878.0D	510.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1637.0	0707.3	732.0D	830.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1637.0	1654.6	146.0	35.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2319.0	0346.8	623.0D	220.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0109.0	0109.3	.8	580.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0113.1	0114.8	3.7	900.0			QL=6 ST=2 TYP=5
	4995	MANI	4	S/F	0116.0	0118.3	3.8D	55.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0116.5	0118.3	3.1D	24.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0117.0	0117.6	2.6	77.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0353.3	0353.6	.5	950.0			QL=6 ST=2 TYP=5
	4995	LEAR	8	S	0402.8	0403.5	1.7	44.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0403.0	0403.5	1.3	27.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0403.3	0403.5	.2	13.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1337.0	1338.3	2.3D	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1337.0	1338.5	4.8D	74.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1337.0	1338.6	6.1D	32.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1337.1	1338.6	4.9D	55.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1337.3	1338.5	4.8	100.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	1337.3	1338.6	4.3D	33.0			QL=5 ST=2 TYP=3
	15400	SGMR	8	S	1337.8	1338.3	1.8	54.0			QL=6 ST=2 TYP=3
23	410	LEAR	43	NS	0228.6	0929.5	433.4D	38.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2318.0	0232.8	624.0D	340.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2318.0	0702.3	624.0D	110.0			QL=6 ST=2 TYP=1
	8800	MANI	47	GB	0053.5	0056.8	34.5	1100.0			QL=6 ST=2 TYP=5
	606	PALE	49	GB	0053.8	0056.3		220.0			QL=6 ST=3 TYP=7
	2695	PALE	49	GB	0053.8	0056.5		660.0			QL=6 ST=3 TYP=7

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JULY 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
23	4995	PALE	49	GB	0054.3	0056.8		1199.0			QL=6 ST=3 TYP=7
	8800	PALE	49	GB	0054.8	0056.8		1300.0			QL=6 ST=3 TYP=7
	15400	PALE	49	GB	0055.1	0056.8		670.0			QL=6 ST=3 TYP=7
	1415	PALE	49	GB	0056.5	0056.6		2200.0			QL=6 ST=3 TYP=7
	410	PALE	49	GB	0056.6	0056.8		1600.0			QL=6 ST=3 TYP=7
	245	PALE	49	GB	0105.5	0105.8	.6	310.0			QL=6 ST=2 TYP=7
	4995	SGMR	4	S/F	1659.0	1701.1	4.3D	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1700.3	1701.3	3.0	26.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2013.6	2014.1	.7	45.0			QL=5 ST=2 TYP=3
	410	PALE	8	S	2307.8	2308.1	.3	35.0			QL=6 ST=2 TYP=3
24	245	PALE	43	NS	0232.3	0232.8	136.7	370.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0932.0	1511.5	875.0D	260.0			QL=6 ST=2 TYP=1
	8800	LEAR	8	S	0303.3	0303.5	.3	25.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0303.3	0303.6	.3	18.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0648.6	0648.8	.5	1300.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0648.6	0648.8	.5	22.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0648.6	0648.8	.5	16.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0908.8	0909.1	.3	21.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0908.8	0909.1	3.3	61.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0908.8	0909.1	1.0	82.0			QL=6 ST=2 TYP=3
25	245	SGMR	43	NS	1501.1	1524.6	544.9D	270.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0004.3	0004.6	.8	66.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2151.3	2151.5	1.7	13.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2151.3	2151.6	1.5	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2242.0	2242.1	1.0	90.0			QL=4 ST=2 TYP=3
26	245	LEAR	43	NS	0017.0	0823.3	566.0D	130.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0311.0	0636.0	392.0D	92.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0859.5	0859.6	.3	330.0			QL=6 ST=3 TYP=3
27	245	SGMR	43	NS	0935.0	1106.8	869.0D	139.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1736.5	0004.6	675.5D	119.0			QL=6 ST=2 TYP=1
	245	SGMR	47	GB	1222.1	1222.6	1.4	680.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	2303.5	2304.3	1.6	170.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2303.6	2304.1	1.2	270.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2304.0	2304.1	.5	40.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2304.0	2304.3	.6D	8.0			QL=6 ST=2 TYP=3
28	245	LEAR	43	NS	2316.0	0737.6	628.0D	170.0			QL=6 ST=2 TYP=1
	245	SGMR	47	GB	1719.8	1724.8	5.5	46.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1829.1	1829.3	.5	1000.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1829.3	1829.5	.5	620.0			QL=6 ST=2 TYP=5
29	245	PALE	8	S	0342.8	0343.0	.3	210.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0342.8	0343.0	.3	160.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0443.0E	0444.3	3.1D	23.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1440.6	1440.8	.4	230.0			QL=6 ST=2 TYP=3
30	2695	SGMR	4	S/F	1254.8	1257.0	2.5D	26.0			QL=6 ST=3 TYP=3
	4995	SGMR	8	S	1257.6	1257.8	.5	48.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	2031.8	2033.6	2.5D	15.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2033.6	2033.8	.9	62.0			QL=6 ST=2 TYP=3
31	245	SGMR	47	GB	1452.0	1453.8	5.1	2300.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1515.1	1515.3	.5	1600.0			QL=6 ST=2 TYP=5
	2695	SGMR	8	S	1533.0	1533.1	.5	15.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1536.3	1548.8	13.2	2300.0			QL=6 ST=2 TYP=5
	8800	SGMR	8	S	2328.8	2329.1	1.5	200.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
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AUGUST 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	245	LEAR	43	NS	0245.0	0537.3	421.0D	87.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2314.0	0040.3	632.0D	38.0			QL=6 ST=2 TYP=1
04	2695	SGMR	47	GB	1352.3	1354.1	7.8	42.0			QL=6 ST=2 TYP=5
06	245	PALE	43	NS	2045.0	2102.5	482.0D	56.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2311.0	0506.0	637.0D	85.0			QL=6 ST=2 TYP=1
07	410	LEAR	43	NS	0655.3	0745.1	172.7D	18.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0946.0	2027.5	845.0D	83.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1640.0	2029.6	725.0D	220.0			QL=6 ST=2 TYP=1
08	245	LEAR	43	NS	2309.0	0733.8	639.0D	49.0			QL=6 ST=2 TYP=1
09	245	SGMR	43	NS	0948.0	1050.6	840.0D	58.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1712.0	1923.6	690.0D	47.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2314.0	0353.8	634.0D	56.0			QL=6 ST=2 TYP=1
	245	SGMR	8	S	1139.8	1139.8	.2	10.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1140.1	1140.1	.2D	24.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2348.8	2349.1	.3	340.0			QL=6 ST=3 TYP=3
	1415	LEAR	47	GB	2348.8	2349.1	.5	990.0			QL=6 ST=3 TYP=5
	8800	LEAR	8	S	2349.0	2349.1	.3	15.0			QL=6 ST=3 TYP=3
	4995	LEAR	8	S	2349.0	2349.1	.3	11.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	2349.0	2349.1	.3	75.0			QL=6 ST=3 TYP=3
	606	LEAR	47	GB	2349.0	2349.1	.3	610.0			QL=6 ST=3 TYP=5
	410	LEAR	8	S	2349.0	2349.1	.3	330.0			QL=6 ST=3 TYP=3
	4995	MANI	8	S	2349.0	2349.6	1.1	25.0			QL=6 ST=2 TYP=4
	2695	MANI	8	S	2349.0	2349.6	.8D	64.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	2349.0	2349.6	1.1D	570.0			QL=6 ST=2 TYP=5
10	245	SGMR	43	NS	0950.0	1744.0	837.0D	36.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2309.0	0529.8	641.0D	26.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0306.6	0306.6	.9	110.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0714.6	0714.8	1.0	51.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0714.6	0714.8	1.0	85.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0714.8	0715.0	3.0	67.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1236.0	1237.8	2.6D	90.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1236.5	1237.8	2.0D	43.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1236.6	1237.8	2.5D	30.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1236.8	1237.8	2.2D	31.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	1237.0	1237.8	2.0	11.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1238.1	1238.3	.7	280.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2058.6	2100.8	6.9D	13.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2058.8	2101.0	6.3	52.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2059.0	2059.8	4.1	40.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	2059.5	2103.5	8.3D	119.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	2059.8	2104.0	12.8	700.0			QL=6 ST=3 TYP=5
	4995	SGMR	47	GB	2100.0	2103.8	10.0D	630.0			QL=4 ST=2 TYP=5
	4995	PALE	47	GB	2100.0	2104.0	12.0	630.0			QL=6 ST=3 TYP=5
	2695	SGMR	4	S/F	2100.3	2104.0	9.8	340.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2100.3	2104.0	9.5	420.0			QL=6 ST=3 TYP=3
	1415	PALE	4	S/F	2101.0	2103.5	5.6	119.0			QL=6 ST=3 TYP=3
	15400	PALE	4	S/F	2101.3	2104.0	9.8	380.0			QL=6 ST=3 TYP=3
	15400	SGMR	4	S/F	2101.5	2103.8	11.0D	270.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	2344.3	2345.6	2.8	41.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	2344.5	2345.8	2.6	57.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	2346.8	2347.1	.3	20.0			QL=6 ST=3 TYP=3
	410	PALE	8	S	2349.0	2349.3	.5	98.0			QL=2 ST=2 TYP=3
	1415	PALE	47	GB	2349.0	2349.3	.5	680.0			QL=2 ST=2 TYP=5
	245	PALE	8	S	2349.0	2349.3	.5	410.0			QL=2 ST=2 TYP=3
	606	PALE	8	S	2349.1	2349.3	.4	470.0			QL=2 ST=2 TYP=3
11	245	PALE	43	NS	0105.0	0131.6	223.0D	57.0			QL=5 ST=2 TYP=1
	245	SGMR	43	NS	0951.0	1834.1	834.0D	74.0			QL=6 ST=2 TYP=1
	606	LEAR	4	S/F	0050.6	0051.6	16.7	62.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0050.6	0058.1	18.2	139.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	0050.8	0051.8	8.0	55.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	0052.1	0058.1	10.2	160.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0055.8	0059.1	9.5	320.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0057.5	0059.1	5.1	360.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	1415	LEAR	4	S/F	0057.5	0103.1	9.6	50.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0058.8	0104.0	8.5	56.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0059.5	0104.1	8.3	57.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0059.6	0103.0	6.5	42.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0102.1	0104.3	8.2	31.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0102.3	0104.3	4.7	27.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0102.3	0105.3	13.7	24.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0104.1	0105.3	11.9	21.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0104.6	0105.0	.4D	24.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0704.1	0704.3	.7	25.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0704.6	0704.8	.4	16.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0822.1	0822.5	.7	22.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1918.8	1919.1	.8	30.0			QL=6 ST=2 TYP=3
12	245	LEAR	43	NS	0601.6	0602.6	228.4D	27.0			QL=6 ST=2 TYP=1
	2695	LEAR	8	S	0557.6	0557.8	1.4	11.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0604.0	0605.6	3.1	5.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0604.6	0605.5	2.5	39.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0604.8	0605.3	1.8	31.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0605.1	0605.3	.2	15.0			QL=6 ST=2 TYP=3
	2695	MANI	8	S	0605.1	0605.6	2.0D	24.0			QL=6 ST=2 TYP=4
13	245	LEAR	43	NS	0005.0	0859.8	585.0D	44.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0620.6	0621.1	.5D	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0620.8	0621.8	1.0D	13.0			QL=6 ST=2 TYP=3
	4995	ATHN	47	GB	1247.6	1254.6	98.7D	1399.0			QL=6 ST=3 TYP=5
	1415	ATHN	47	GB	1247.6	1255.5	63.0D	650.0			QL=6 ST=3 TYP=5
	2695	ATHN	47	GB	1247.8	1255.3	60.5D	1000.0			QL=6 ST=3 TYP=5
	8800	ATHN	47	GB	1248.0	1254.6	66.0	2100.0			QL=6 ST=3 TYP=5
	15400	SGMR	47	GB	1250.3	1254.6	20.2	800.0			QL=6 ST=2 TYP=5
	606	SGMR	47	GB	1321.5	1329.5	11.1	93.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1407.8	1409.1	6.7	170.0			QL=6 ST=2 TYP=3
14	245	LEAR	43	NS	0424.5	0855.1	325.5D	27.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0542.8	0543.8	1.7	1300.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0543.3E	0543.3	.2D	7.0			QL=2 ST=3 TYP=3
	410	LEAR	8	S	0543.3	0543.3	.2	19.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1317.8	1317.8	.3	100.0			QL=6 ST=2 TYP=3
15	245	LEAR	43	NS	0542.0	0834.6	249.0D	73.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2304.0	0334.3	647.1D	32.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0504.0	0504.3	1.0	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0519.3	0519.6	.3	32.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0754.0	0754.1	3.8	13.0			QL=6 ST=3 TYP=3
16	245	LEAR	43	NS	2303.0	0045.8	648.0D	170.0			QL=6 ST=2 TYP=1
	15400	PALE	8	S	0423.6	0424.1	.5	35.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0424.5	0424.8	1.3	22.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0424.6	0424.8	.2	13.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	2317.1	2317.3	2.2	130.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2348.6	2349.6	1.5	290.0			QL=6 ST=2 TYP=3
17	410	LEAR	43	NS	0554.5	0920.8	236.5D	60.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2303.0	0335.0	649.0D	490.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0039.8	0040.5	1.7	310.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1326.5	1330.3	12.8	92.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1347.0	1401.6	17.0D	300.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1347.0	1403.1	17.1D	1199.0			QL=6 ST=3 TYP=5
	606	SGMR	47	GB	1347.5E	1347.8	13.0D	260.0			QL=6 ST=3 TYP=5
	1415	SGMR	47	GB	1400.5	1402.0	3.5D	840.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1400.5	1402.3	4.5	170.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1417.3	1420.0	11.3	36.0			QL=6 ST=2 TYP=4
	606	SGMR	4	S/F	1510.8	1513.3	8.3	130.0			QL=6 ST=2 TYP=3
18	410	LEAR	43	NS	0015.0	0122.0	577.0D	32.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	0948.0	1532.3	827.0D	139.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2302.0	0018.6	651.0D	520.0			QL=6 ST=2 TYP=1
	606	SGMR	8	S	1247.3	1248.6	1.8D	110.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1248.0	1248.3	2.3D	6.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1248.0	1248.8	4.8D	16.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	4995	ATHN	4	S/F	1248.1	1248.5	3.2D	7.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	1248.6	1249.1	1.4D	4.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1248.6	1249.1	1.7	13.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1248.8	1249.1	.5	11.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1249.1	1249.3	.5D	88.0			QL=6 ST=2 TYP=3
19	245	SGMR	43	NS	0959.0	1506.1	815.0D	81.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2302.0	0018.6		520.0			QL=6 ST=3 TYP=1
	410	LEAR	8	S	0515.3	0515.6	.5	22.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0636.3	0636.3	.3	350.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0636.5	0636.6	.8	119.0			QL=6 ST=2 TYP=3
20	245	SGMR	43	NS	1000.0	1312.0	812.0D	150.0			QL=6 ST=3 TYP=1
	245	LEAR	43	NS	2300.0	0159.3	653.0D	89.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2300.0	0302.8	653.0D	150.0			QL=5 ST=2 TYP=1
	245	LEAR	8	S	0551.0	0551.1	1.0	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0551.3	0551.3	.2	15.0			QL=5 ST=2 TYP=3
	410	LEAR	8	S	0649.8	0650.0	.3	77.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0739.1	0740.1	7.7	16.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0739.1	0740.3	4.9	98.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0739.1	0742.1	10.7	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0740.1	0740.5	.5	21.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0746.8	0751.0	5.8	41.0			QL=2 ST=2 TYP=3
21	245	SGMR	43	NS	1001.0	1650.1	409.1D	1300.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1001.0	1651.1	410.1D	82.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2259.0	0746.8	654.0D	37.0			QL=6 ST=2 TYP=1
	606	LEAR	8	S	0120.0	0121.1	1.3	63.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1342.1	1343.0	2.4D	6.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1342.6	1343.0	5.2	18.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1741.0	1751.1	10.8	420.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1853.0	1857.0	11.0	260.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1853.1	1858.8	10.9D	630.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	1856.1	1857.8	6.5	82.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1856.8	1857.8	10.2	85.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1856.8	1857.8	33.2	65.0			QL=6 ST=3 TYP=3
	1415	PALE	4	S/F	1857.1	1858.3	3.4	150.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	1859.0	1907.1	31.0	73.0			QL=6 ST=3 TYP=4
22	245	LEAR	43	NS	2258.0	0144.8	656.0D	370.0			QL=6 ST=2 TYP=1
	8800	LEAR	8	S	0252.8	0253.1	1.5	24.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0253.0	0253.1	.1	49.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0300.0	0301.8	3.6	130.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0300.5	0302.1	3.3	78.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0301.3	0301.6	1.8	11.0			QL=6 ST=3 TYP=3
	2695	MANI	4	S/F	0428.0	0429.5	2.3D	17.0			QL=6 ST=2 TYP=4
	606	MANI	4	S/F	0428.0	0429.5	2.3D	56.0			QL=6 ST=2 TYP=4
	1415	MANI	8	S	0428.3	0429.6	2.0D	11.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	0428.5	0429.6	1.5	33.0			QL=6 ST=2 TYP=4
	245	LEAR	8	S	0501.6	0502.3	1.0	110.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0514.1	0518.1	8.7	72.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0515.3	0517.1	7.8	110.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0515.5	0518.1	7.5	30.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0515.6	0515.8	7.4	100.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0515.6	0519.6	8.5	75.0			QL=6 ST=2 TYP=3
	1415	ATHN	47	GB	0516.1	0517.6	13.5D	53.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	0516.1	0526.6	15.2D	53.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	0516.8	0527.0	15.0D	48.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0517.1	0527.6	12.5	24.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0523.3	0526.6	5.8	42.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0523.5	0526.3	5.0	50.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0523.5	0526.5	5.5D	59.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0523.5	0526.5	6.5D	48.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0523.6	0526.6	4.9	52.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0523.8	0526.6	5.3	52.0			QL=6 ST=2 TYP=3
	606	MANI	4	S/F	0524.0	0527.6	5.0D	17.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0524.6	0525.3	2.4D	31.0			QL=6 ST=2 TYP=4
	1415	LEAR	8	S	0525.0	0525.3	.6	32.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0526.1	0526.6	.7	24.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0549.3	0549.6	1.0	200.0			QL=6 ST=3 TYP=3

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22	245	LEAR	4	S/F	0620.3	0620.6	2.8	170.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0825.8	0829.5	4.5D	15.0			QL=6 ST=3 TYP=4
	2695	ATHN	4	S/F	0826.3	0829.1	4.5D	30.0			QL=6 ST=3 TYP=4
	245	LEAR	8	S	0828.1	0829.1	1.7	450.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0828.1	0829.3	2.7	19.0			QL=6 ST=3 TYP=4
	2695	LEAR	8	S	0828.5	0829.3	1.0	21.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0829.1	0829.3	.2	18.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0829.1	0829.5	.5	40.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0829.3	0829.5	.3	29.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1125.0	1127.0	4.1	360.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1125.3	1127.0	4.7D	119.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1126.6	1127.8	2.2D	2.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1249.1	1249.3	.4	17.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1249.1	1249.3	1.0D	11.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1715.1	1724.0	16.9D				QL=6 ST=2 TYP=4
	2695	SGMR	4	S/F	1716.1	1719.1	15.9D	16.0			QL=6 ST=2 TYP=4
	15400	SGMR	4	S/F	1718.1	1727.0	13.9	18.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1718.3	1724.0	13.7D	10.0			QL=6 ST=2 TYP=4
	2695	PALE	4	S/F	2124.6	2125.6	5.4	130.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	2124.6	2125.8	6.4D	72.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	2125.1	2125.5	.9	33.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2125.1	2125.5	11.4	130.0			QL=6 ST=3 TYP=3
	1415	PALE	8	S	2125.1	2125.6	1.0	69.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	2125.1	2125.6	4.9	110.0			QL=6 ST=3 TYP=3
	15400	PALE	4	S/F	2125.3	2125.6	5.3	49.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	2125.6	2125.8	5.0D	220.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2125.8	2126.0	4.3D	490.0			QL=6 ST=2 TYP=3
23	245	SGMR	43	NS	1003.0	1147.6	804.0D	139.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0443.8	0444.0	.3	150.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0828.1	0829.1	1.7	450.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0828.5	0829.3	1.0	21.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0829.1	0829.3	.2	18.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0829.1	0829.5	.5	40.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0829.3	0829.5	.3	29.0			QL=6 ST=3 TYP=3
	8800	SGMR	4	S/F	1156.8	1205.3	10.0D	27.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1156.8	1205.3	9.5	15.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1358.5	1358.6	.3D	29.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1405.1	1405.3	.4D	15.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1405.1	1405.3	.4	85.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	2126.1	2128.5	3.5	43.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2126.8	2128.0	4.5	60.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2126.8	2128.0	6.2	100.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	2127.1	2128.6	2.5	36.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2127.5	2128.6	1.6	64.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2127.8	2128.8	1.0	16.0			QL=6 ST=2 TYP=3
24	245	SGMR	43	NS	1004.0	2152.0	802.0D	79.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2257.0	0849.1	657.0D	62.0			QL=6 ST=2 TYP=1
	8800	LEAR	49	GB	0529.3	0539.8	33.8	19.0			QL=6 ST=2 TYP=7
	15400	LEAR	49	GB	0532.3	0534.1	33.2	13.0			QL=6 ST=2 TYP=7
	4995	LEAR	49	GB	0826.3	0827.5	9.2	15.0			QL=6 ST=2 TYP=7
	4995	SGMR	4	S/F	1604.1	1605.6	3.0D	10.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1605.0	1605.5	1.1	13.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1645.5	1647.1	2.5	119.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1703.0	1704.6	2.5	280.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1703.8	1704.3	1.5D	200.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1945.5	1945.8	6.0	13.0			QL=6 ST=2 TYP=4
	4995	SGMR	47	GB	1945.5	1950.8	6.8D	7.0			QL=6 ST=2 TYP=5
25	410	LEAR	43	NS	0055.0	0107.3	540.0D	19.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0055.0	0108.0	540.0D	110.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1005.0	1705.8	420.8D	38.0			QL=6 ST=3 TYP=1
	410	LEAR	43	NS	2256.0	0634.0	659.0D	30.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2256.0	0830.3	659.0D	260.0			QL=6 ST=2 TYP=1
	15400	LEAR	8	S	0056.1	0056.1	.2	24.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0136.8	0137.1	.3	11.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0400.3	0401.8	2.0	15.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0400.6	0400.6	1.4	76.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0400.8	0401.6	1.0	40.0			QL=6 ST=2 TYP=3

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25	606	MANI	47 GB	0401.0	0401.1	3.0D	53.0			QL=6 ST=2 TYP=5
	4995	LEAR	8 S	0401.1	0401.6	.5	26.0			QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0401.1	0401.6	.5	35.0			QL=6 ST=2 TYP=3
	1415	MANI	8 S	0401.1	0402.0	1.9D	18.0			QL=6 ST=2 TYP=3
	8800	MANI	8 S	0401.1	0402.1	1.9	25.0			QL=6 ST=2 TYP=4
	4995	MANI	8 S	0401.1	0402.3	1.9D	26.0			QL=6 ST=2 TYP=4
	2695	MANI	8 S	0401.3	0401.3	1.7D	10.0			QL=6 ST=2 TYP=4
	4995	PALE	8 S	0401.3	0401.6	.5	24.0			QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0401.6	0401.8	.7	800.0			QL=6 ST=2 TYP=5
	606	LEAR	8 S	0553.8	0554.3	1.2	40.0			QL=6 ST=2 TYP=3
	245	LEAR	8 S	0554.1	0554.3	.7	48.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	0554.1	0554.3	.5	100.0			QL=6 ST=2 TYP=3
	606	LEAR	8 S	0759.1	0800.3	1.4	36.0			QL=6 ST=2 TYP=3
	1415	SGMR	8 S	1019.6	1019.8	.7	54.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	1020.0	1020.1	1.3D	19.0			QL=6 ST=2 TYP=3
	606	SGMR	4 S/F	1020.0	1020.3	10.6D	65.0			QL=6 ST=2 TYP=3
	245	SGMR	8 S	1020.0	1020.5	1.8D	119.0			QL=6 ST=2 TYP=3
	410	SGMR	47 GB	1252.8	1254.1	3.0D	600.0			QL=6 ST=2 TYP=5
	245	SGMR	4 S/F	1252.8	1254.1	3.2	56.0			QL=6 ST=2 TYP=3
	2695	ATHN	8 S	1253.3	1254.0	1.8D	4.0			QL=5 ST=2 TYP=4
	4995	ATHN	4 S/F	1253.5	1254.3	30.1D	11.0			QL=5 ST=2 TYP=4
	1415	ATHN	47 GB	1253.5	1254.5	3.0D	54.0			QL=5 ST=2 TYP=5
	8800	ATHN	4 S/F	1256.8	1306.3	29.8	10.0			QL=5 ST=2 TYP=4
	410	SGMR	47 GB	1351.1	1354.3	4537.7	610.0			QL=6 ST=2 TYP=5
	410	SGMR	8 S	1418.0	1418.1	1.0	19.0			QL=6 ST=2 TYP=3
	606	SGMR	8 S	1419.1	1420.1	1.2D	27.0			QL=6 ST=2 TYP=3
	606	SGMR	8 S	1444.6	1445.3	1.2	79.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	1445.6	1446.6	1.9D	190.0			QL=6 ST=2 TYP=3
	245	SGMR	8 S	1616.8	1617.1	1.0	41.0			QL=6 ST=2 TYP=3
	410	SGMR	8 S	1617.6	1617.8	.4D	48.0			QL=6 ST=2 TYP=3
	4995	SGMR	4 S/F	1752.8	1754.0	2.7D	6.0			QL=6 ST=2 TYP=3
	8800	SGMR	4 S/F	1753.0	1753.8	2.5	16.0			QL=6 ST=2 TYP=3
	245	SGMR	47 GB	1859.6	1900.3	2.0	2000.0			QL=6 ST=2 TYP=5
	2695	SGMR	8 S	2006.6	2007.0	1.4D	13.0			QL=6 ST=2 TYP=3
	4995	SGMR	8 S	2006.8	2007.0	1.3D	7.0			QL=6 ST=2 TYP=3
	8800	SGMR	8 S	2006.8	2007.1	1.7	9.0			QL=6 ST=2 TYP=3
26	245	SGMR	43 NS	1006.0	1427.0	797.0D	150.0			QL=6 ST=2 TYP=1
	606	LEAR	8 S	0009.3	0010.0	1.0	77.0			QL=6 ST=3 TYP=3
	410	LEAR	8 S	0009.3	0010.0	1.0	75.0			QL=6 ST=3 TYP=3
	245	LEAR	8 S	0009.8	0010.0	.3	320.0			QL=6 ST=3 TYP=3
	1415	PALE	8 S	0353.3	0353.8	.8	30.0			QL=6 ST=2 TYP=3
	606	PALE	8 S	0353.3	0353.8	1.3	30.0			QL=6 ST=2 TYP=3
	410	LEAR	4 S/F	0353.6	0353.8	2.4	22.0			QL=6 ST=2 TYP=3
	1415	LEAR	4 S/F	0353.6	0353.8	2.5	34.0			QL=6 ST=2 TYP=3
	606	LEAR	8 S	0353.6	0354.0	1.5	18.0			QL=6 ST=2 TYP=3
	4995	LEAR	4 S/F	0353.6	0354.1	2.5	11.0			QL=6 ST=2 TYP=3
	410	PALE	8 S	0353.8	0353.8	.3	35.0			QL=6 ST=2 TYP=3
	2695	LEAR	4 S/F	0354.0	0354.1	2.3	15.0			QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0354.0	0354.3	1.6	7.0			QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0415.6	0415.6	.5	770.0			QL=6 ST=3 TYP=5
	606	LEAR	8 S	0415.6	0415.8	.2	32.0			QL=6 ST=3 TYP=3
	410	LEAR	8 S	0415.6	0415.8	.7	51.0			QL=6 ST=3 TYP=3
	245	PALE	47 GB	0415.6	0415.8	.4	1100.0			QL=5 ST=2 TYP=5
	8800	SGMR	8 S	1531.0	1531.1	.3	41.0			QL=6 ST=2 TYP=3
27	245	SGMR	43 NS	1008.0	1338.8	793.0D	3.0			QL=6 ST=2 TYP=1
	245	PALE	43 NS	2007.0	2046.0	513.0	70.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2253.0	0204.1	662.0D	53.0			QL=6 ST=2 TYP=1
	410	LEAR	43 NS	2255.0	0238.6	660.0D	23.0			QL=6 ST=2 TYP=1
28	245	SGMR	43 NS	1009.0	2030.3	790.0D	42.0			QL=6 ST=2 TYP=1
	245	PALE	8 S	2029.8	2030.1	.8	40.0			QL=6 ST=2 TYP=3
29	245	SGMR	43 NS	1010.0	2301.6	788.0D	530.0			QL=6 ST=2 TYP=1
	4995	SGMR	43 NS	1220.1	1221.3	2.2D				QL=6 ST=2 TYP=1
	8800	SGMR	43 NS	1220.3	1221.6	5.0	16.0			QL=6 ST=2 TYP=1
	245	PALE	43 NS	1643.0	2301.6	712.0D	760.0			QL=6 ST=2 TYP=1
	245	LEAR	43 NS	2252.0	2300.3	664.0D	480.0			QL=6 ST=2 TYP=1
	4995	PALE	49 GB	0335.6	0336.0	.4D	16.0			QL=6 ST=3 TYP=7

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	245	LEAR	4	S/F	0402.0	0402.3	2.5	150.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0402.0	0404.1	2.3	27.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	0402.1	0404.1	2.2	35.0			QL=6 ST=2 TYP=5
	245	PALE	8	S	0403.8	0404.1	.8	130.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0614.6	0614.8	.2	13.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	1221.3	1222.3	2.0	11.0			QL=6 ST=2 TYP=4
	410	SGMR	8	S	1514.3	1514.6	.5	85.0			QL=6 ST=3 TYP=3
	410	SGMR	8	S	1714.3	1714.6	.5	85.0			QL=6 ST=2 TYP=3
30	1415	ATHN	43	NS	0800.0	0805.1	12.5D	68.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1011.0	1716.3	785.0D	570.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2251.0	0329.5	666.0D	25.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2251.0	0655.0	666.0D	390.0			QL=6 ST=2 TYP=1
	410	PALE	8	S	0239.1	0239.3	.2	67.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0304.5	0304.6	.1	18.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0304.6	0305.0	.5	22.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	0556.3	0556.6	.7	49.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0713.3	0714.3	2.3	44.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0802.6	0809.6	10.0	6.0			QL=6 ST=2 TYP=4
	606	LEAR	47	GB	0805.1	0805.1	.2	1199.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0805.1	0805.3	2.5	78.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0809.0	0809.1	.3	18.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0809.1	0809.1	.2	63.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1054.1	1055.0	4.0	36.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1056.8	1057.0	.8D	250.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1241.1	1243.5	3.7D	34.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1241.3	1243.3	3.8	9.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1241.3	1243.3	3.7D	18.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	1242.8	1243.6	1.3D	13.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1242.8	1243.6	2.8	29.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1402.8	1403.5	1.2	270.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1403.1	1403.5	.7D	33.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1445.1	1445.1	.2D	17.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1445.1	1445.3	.7	119.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1749.3	1749.8	1.5	420.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1749.6	1749.8	.5D	66.0			QL=6 ST=2 TYP=3
31	245	PALE	43	NS	1643.0	0422.8	712.0D	130.0			QL=6 ST=2 TYP=1
	4995	LEAR	8	S	0013.3	0013.6	.3	19.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0823.3	0823.8	2.0	18.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0823.6	0823.8	1.4	16.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0823.6	0824.5	1.5	86.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S.	0840.5	0841.1	1.0	19.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0840.5	0841.1	1.5	18.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0840.6	0841.1	1.0	9.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0840.8	0841.1	1.2	29.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0840.8	0841.1	4.8D	24.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0841.0	0841.1	.3	15.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0841.0	0841.1	.8	18.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0841.0	0841.1	.3	84.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0841.0	0841.3	5.1D	16.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0841.0	0841.3	5.5	5.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0841.0	0841.3	4.6D	19.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0923.1	0924.0	4.7	250.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0923.3	0923.6	4.0	330.0			QL=6 ST=2 TYP=5
	4995	LEAR	47	GB	0923.3	0923.8	4.2	190.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	0923.3	0923.8	7.0D	220.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0923.3	0923.8	7.3	170.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0923.3	0925.6	4.2	700.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	0923.3	0925.6	6.7D	139.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0923.3	0925.6	7.0D	250.0			QL=6 ST=2 TYP=3
	1415	LEAR	47	GB	0923.3	0925.6	5.0	170.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	0923.3	0925.6	5.5	250.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0923.6	0923.8	2.0	119.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0923.6	0923.8	.2	54.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1226.1	1227.6	3.7	380.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1226.3	1227.6	2.8D	10.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1226.5	1227.6	2.5D	15.0			QL=6 ST=2 TYP=4
	1415	SGMR	8	S	1226.8	1227.1	1.0D	20.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1227.0	1227.8	1.1D	39.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

AUGUST 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
31	606	SGMR	8	S	1227.3	1227.5	.5D	119.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1248.1	1249.0	11.7	910.0			QL=6 ST=2 TYP=5
	4995	ATHN	4	S/F	1325.3	1330.0	47.8D	81.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1326.3	1330.1	29.5D	56.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1326.6	1331.1	30.0D	28.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	1327.0	1330.1	4.1	1000.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	1328.8	1336.8	40.8	47.0			QL=6 ST=2 TYP=4
	245	SGMR	47	GB	1749.0	1749.1	5.0	2100.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1749.0	1749.3	1.0	640.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1749.0	1749.3	1.0	1900.0			QL=6 ST=2 TYP=5
	606	PALE	8	S	1749.0	1749.3	1.0	46.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2150.6	2150.8	.2	100.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	245	SGMR	43	NS	1013.0	2245.6	780.0D	420.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1641.0	1945.6	714.0D	139.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	2218.0	2245.0	55.0D	139.0			QL=6 ST=2 TYP=1
	606	SGMR	43	NS	2218.0	2246.1	55.0D	119.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2249.0	0700.8	668.0D	130.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2249.0	2343.5	668.0D	45.0			QL=6 ST=2 TYP=1
	8800	LEAR	8	S	0228.3	0228.6	.3	20.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0345.3	0345.6	.5	24.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0345.3	0345.6	.5	19.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0518.8	0524.1	5.3	13.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0518.8	0527.1	9.3	32.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0526.3	0526.8	1.2	68.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0526.6	0527.8	1.2D	79.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0543.1	0543.8	1.0	41.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0543.3	0543.5	.3	170.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0543.3	0543.6	.5	48.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0543.3	0543.6	.3	18.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0543.5	0543.6	.3	32.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0603.6	0604.0	.9	18.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	0603.8	0603.8	.8	18.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0639.3	0639.8	.8	33.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0639.6	0639.8	.7	270.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0653.3	0653.5	.3	16.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0701.3	0701.6	.3	520.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0701.5	0701.6	.3	22.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0704.8	0706.8	2.2	40.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0705.1	0705.1	1.9	2500.0			QL=6 ST=2 TYP=5
	8800	ATHN	4	S/F	0729.6	0730.6	4.9	44.0			QL=5 ST=2 TYP=3
	606	LEAR	8	S	0746.0	0747.5	1.8	39.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0747.3	0747.6	.7	39.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1037.6	1038.1	6.4D	19.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1037.8	1038.1	1.2D	36.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1038.1	1038.1	6.9	100.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1038.1	1042.8	6.9D	71.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1223.0	1223.1	3.5	20.0			QL=5 ST=2 TYP=4
	410	SGMR	4	S/F	1224.1	1224.8	2.2D	20.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1225.0	1225.8	1.5	340.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1359.1	1359.3	.7	410.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1359.5	1359.8	.5D	40.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1854.1	1854.8	3.4	20.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1854.5	1855.1	1.6D	9.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1854.8	1855.1	1.0	19.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1929.0	1930.6	1.6	74.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1933.0	1933.1	1.5D	15.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1944.8	1945.6	1.5	130.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1944.8	1945.6	1.2D	51.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	2325.5	2329.6	4.3	139.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2329.3	2329.8	1.7	50.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	2329.5	2329.6	1.1	59.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2329.5	2329.6	.1	119.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	2349.8	2350.0	.3	67.0			QL=6 ST=2 TYP=3
02	410	SGMR	43	NS	1014.0	1130.0	286.0D	52.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1014.0	1526.3	777.0D	180.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2249.0	0529.5	668.0D	260.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0110.8	0111.1	2.3	73.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0111.1	0111.6	2.2	54.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0111.1	0111.6	2.7	62.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0111.1	0111.6	1.2	59.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0111.1	0111.8	3.7	63.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0111.1	0111.8	1.2	50.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0111.1	0111.8	3.7	20.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0111.3	0111.6	.5	55.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0111.3	0111.6	2.0	49.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0111.3	0111.6	.3	15.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0111.5	0111.6	.3	18.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0111.5	0111.6	1.3	16.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0645.3	0645.5	.3	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0645.3	0647.8	3.0	22.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0646.8	0647.8	1.3	19.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
02	4995	LEAR	8	S	0654.5	0655.8	1.5	16.0			QL=6 ST=3 TYP=4
	245	LEAR	8	S	0655.3	0656.3	1.5	100.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	0655.6	0655.8	.4	17.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1310.0	1313.8	4.8	110.0			QL=6 ST=2 TYP=3
	1415	ATHN	47	GB	1310.5	1312.0	5.6D	92.0			QL=5 ST=3 TYP=5
	4995	ATHN	4	S/F	1310.6	1312.5	5.5D	40.0			QL=5 ST=3 TYP=4
	2695	ATHN	4	S/F	1310.8	1313.0	5.7D	44.0			QL=5 ST=3 TYP=4
	8800	ATHN	4	S/F	1312.0	1313.6	3.1	11.0			QL=5 ST=3 TYP=4
	4995	SGMR	4	S/F	1805.0	1806.3	2.6D	24.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1805.8	1806.5	3.5	13.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1806.1	1806.6	1.5D	11.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1900.5	1900.6	1.1	230.0			QL=6 ST=2 TYP=3
03	410	LEAR	43	NS	0424.0	0431.3	333.0D	49.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1015.0	1825.1	774.0D	220.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1015.0	1947.0	774.0D	48.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1655.0	0401.0	700.0D	310.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2247.0	0400.8	668.0D	250.0			QL=6 ST=2 TYP=1
	8800	LEAR	8	S	0219.3	0220.0	1.2	38.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0219.5	0220.0	.8	17.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0402.3	0408.3	14.5	94.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0402.5	0408.3	14.3	130.0			QL=6 ST=2 TYP=4
	606	MANI	47	GB	0404.6	0408.3	15.0D	52.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0405.0	0408.3	11.8	34.0			QL=6 ST=2 TYP=5
	1415	MANI	4	S/F	0405.0	0408.6	8.1D	36.0			QL=6 ST=2 TYP=4
	2695	LEAR	47	GB	0405.1	0408.1	4.9	54.0			QL=6 ST=2 TYP=5
	8800	MANI	4	S/F	0405.1	0408.6	7.2	86.0			QL=6 ST=2 TYP=4
	1415	LEAR	47	GB	0405.3	0405.6	.3	13.0			QL=6 ST=2 TYP=5
	606	LEAR	47	GB	0405.3	0407.1	1.8D	25.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0405.3	0408.6	4.5	46.0			QL=6 ST=2 TYP=5
	2695	MANI	4	S/F	0405.5	0408.5	7.6D	48.0			QL=6 ST=2 TYP=4
	245	LEAR	47	GB	0406.5	0407.8	2.3	70.0			QL=6 ST=2 TYP=5
	4995	MANI	4	S/F	0407.3	0408.6	5.0D	350.0			QL=6 ST=2 TYP=4
	245	LEAR	47	GB	0418.6	0422.3	4.9	55.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0418.6	0422.8	4.9	70.0			QL=6 ST=2 TYP=5
	2695	LEAR	8	S	0422.1	0422.3	.2	11.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0422.3	0422.8	20.2	70.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0422.5	0422.8	20.3	180.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	0424.1	0426.8	10.5	19.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0633.6	0634.6	1.5	16.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0634.0	0634.6	.6	16.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1419.6	1421.1	10.5D	23.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1420.0	1421.1	4.3	59.0			QL=6 ST=2 TYP=4
	606	PALE	8	S	1736.3	1737.0	1.0	60.0			QL=5 ST=2 TYP=3
	245	PALE	4	S/F	1814.8	1815.3	4.0	68.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1923.0	1928.0	13.8D	119.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1923.1	1928.1	12.5D	200.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1923.1	1928.1	13.5D	150.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1923.1	1928.1	12.5D	180.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1924.6	1929.0	8.2	139.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1924.6	1929.1	7.2	91.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1924.6	1929.1	7.9	160.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1924.8	1928.1	10.8D	84.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	1925.1	1925.1	7.5	21.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1925.1	1927.1	14.9D	47.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1925.3	1928.1	13.5D	34.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	1926.1	1929.0	10.4	200.0			QL=6 ST=2 TYP=5
	15400	SGMR	4	S/F	1926.3E	1928.1	8.3D	36.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	1926.5	1929.1	10.0	61.0			QL=6 ST=2 TYP=5
	410	PALE	8	S	1927.5	1929.0	1.6	31.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	2323.3	2324.3	1.8	27.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	2323.5	2324.3	1.6	22.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2323.6	2324.0	1.2	23.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2323.6	2324.5	1.7	28.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	2323.8	2324.0	.3	16.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2324.0	2324.1	.8	15.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2327.6	2328.8	2.5	47.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	2328.6	2328.8	2.2	21.0			QL=6 ST=2 TYP=3
04	410	LEAR	43	NS	0227.0	0248.5	448.0D	66.0			QL=6 ST=2 TYP=1

SOLAR RADIO EMISSION
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SEPTEMBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
04	606	LEAR	43	NS	0227.0	0249.1	448.0D	230.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1016.0	1358.6	771.0D	230.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1641.0	1700.1	709.0D	210.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1641.0	1732.3	709.0D	490.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2247.0	0039.8	671.0D	56.0			QL=6 ST=2 TYP=1
	8800	MANI	47	GB	0153.8	0200.8	13.5	1199.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	0155.8	0201.3	20.0	600.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	0156.1	0201.3	19.7	1199.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	0156.5	0201.5	19.0	410.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0156.6	0201.8	18.9	280.0			QL=6 ST=2 TYP=3
	15400	PALE	47	GB	0156.8	0201.3	19.0	710.0			QL=6 ST=2 TYP=5
	606	PALE	4	S/F	0159.1	0201.6	16.4	350.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0204.6	0207.3	7.2	70.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0217.3	0217.6	.5	29.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0218.0	0229.6	13.5	150.0			QL=6 ST=2 TYP=5
	606	LEAR	47	GB	0219.6	0223.0	6.7	26.0			QL=6 ST=2 TYP=5
	606	PALE	4	S/F	0242.6	0249.1	14.2	250.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0243.0	0244.0	2.0	28.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0243.6	0244.1	1.4	26.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0243.8	0244.0	.8	20.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0243.8	0244.0	1.0	48.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0247.6	0248.6	1.7	28.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0653.8	0657.0	5.2	20.0			QL=6 ST=3 TYP=
	4995	LEAR	8	S	0656.5	0657.6	1.1D	17.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0656.6	0657.6	1.4	24.0			QL=6 ST=3 TYP=3
	8800	MANI	4	S/F	2213.8	2217.3	7.7	170.0			QL=6 ST=2 TYP=4
	15400	SGMR	4	S/F	2214.6	2216.3	2.7	45.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2215.6	2216.8	2.2	41.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2215.6	2216.8	2.9	190.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2216.6	2217.3	1.2	67.0			QL=6 ST=2 TYP=3
05	410	LEAR	43	NS	0040.3	0306.5	557.7D	27.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1017.0	1240.5	769.0D	38.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2246.0	0617.3	672.0D	119.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0059.3	0059.6	.7	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0059.5	0059.6	.3	97.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0223.3	0224.1	1.5	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0223.6	0224.1	.5	119.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0223.6	0224.1	.7	119.0			QL=6 ST=3 TYP=3
	1415	PALE	8	S	0223.6	0224.1	.7	24.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	0223.6	0224.1	.5	28.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0257.8	0258.8	1.3	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0258.0	0258.1	1.1	38.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1317.1	1318.3	4.2D	160.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1317.8	1318.3	.8D	20.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1318.0	1318.1	.5	160.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1345.1	1345.6	2.0D	650.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1345.1	1345.6	1.0D	450.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1345.3	1345.8	.7	460.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1759.3	1802.8	3.7	19.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	1801.0	1801.3	.3D	16.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	1801.3	1801.3	.2	13.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1802.3	1803.0	1.2D	31.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1802.6	1802.8	.5D	15.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	1803.3	1803.8	.8	60.0			QL=6 ST=3 TYP=3
	2695	PALE	8	S	1803.3	1803.8	.8	24.0			QL=6 ST=3 TYP=3
	4995	PALE	8	S	1803.6	1803.8	.7	24.0			QL=6 ST=3 TYP=3
06	245	SGMR	43	NS	1018.0	1403.3	766.0D	82.0			QL=6 ST=2 TYP=1
	1415	LEAR	8	S	0709.6	0709.8	.2	18.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0709.8	0710.1	.3	13.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0826.3	0826.3	.3	16.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0826.3	0826.6	.5	91.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0826.3	0826.6	.3	180.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0854.1	0854.6	6.5D	24.0			QL=5 ST=2 TYP=3
	4995	ATHN	4	S/F	0854.1	0854.6	7.9	11.0			QL=5 ST=2 TYP=3
	4995	LEAR	8	S	0854.1	0854.8	1.0	20.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0854.1	0854.8	1.2	25.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1300.0	1300.8	1.8	490.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1300.8	1301.1	1.0D	11.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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SEPTEMBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
07	245	LEAR	43	NS	0301.8	0746.0	417.2D	45.0			QL=6 ST=2 TYP=1
	8800	LEAR	8	S	0010.1	0010.8	1.7	7.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0010.1	0011.0	2.0	8.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0010.6	0010.8	.5	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0318.8	0319.3	1.3	11.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0319.1	0319.1	.2	16.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0319.1	0319.3	.4	16.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0319.1	0319.3	.5	29.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0319.1	0319.3	1.2	33.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0341.1	0341.6	1.5	10.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0341.1	0341.6	1.5	21.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0341.3	0341.3	3.5	21.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0341.3	0341.5	3.5	10.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0341.3	0341.5	3.5	13.0			QL=6 ST=2 TYP=3
08	245	LEAR	43	NS	0218.5	0359.3	459.5D	93.0			QL=6 ST=2 TYP=1
	245	PALE	8	S	0354.0	0355.1	1.6	65.0			QL=5 ST=2 TYP=3
	245	PALE	8	S	0359.3	0359.5	.3	75.0			QL=5 ST=2 TYP=3
	8800	LEAR	4	S/F	0501.5	0503.8	4.1	160.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0501.8	0503.8	3.3	91.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0502.1	0502.6	3.4D	54.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0502.1	0503.8	2.9	48.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0502.1	0503.8	2.9	139.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0502.1	0504.1	4.5	47.0			QL=6 ST=2 TYP=4
	1415	LEAR	8	S	0504.0	0504.1	.1	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0504.3	0504.6	.5	94.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0504.8	0505.1	.8	390.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0523.1	0524.3	17.9	560.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	0523.1	0524.3	17.9	130.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0523.3	0524.3	17.7	230.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0523.6	0524.3	17.4	400.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0523.6	0525.1	10.0	36.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0523.8	0524.8	4.8	77.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0526.0	0526.3	2.6	350.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1307.3	1307.3	.5	35.0			QL=6 ST=3 TYP=3
	245	SGMR	8	S	1307.3	1307.3	.5	85.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1407.6	1407.8	.5	50.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1407.6	1407.8	.4D	39.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1442.1	1442.8	2.0	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1442.3	1443.0	1.8D	25.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1456.3	1456.5	.5	23.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1909.3	1911.0	2.5	67.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1909.3	1911.6	4.7D	77.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1909.3	1911.6	7.3D	110.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1909.6	1911.6	5.0D	29.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1910.1	1911.8	7.9D	45.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1911.1	1912.6	10.4	110.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1911.3	1912.6	2.2	66.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1911.8	1912.6	1.3	67.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1911.8	1912.6	1.2	37.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	1912.0	1912.6	2.3	44.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2137.1	2137.8	.7	190.0			QL=5 ST=2 TYP=3
09	245	LEAR	43	NS	0039.5	0741.6	558.5D	49.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1840.0	1856.8	259.0	46.0			QL=6 ST=2 TYP=1
	15400	PALE	8	S	0256.1	0256.3	.7	48.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0614.6	0615.3	1.7	119.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0614.8	0615.6	1.8	43.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1324.0	1324.1	.3	400.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1356.0	1356.3	.8	40.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1834.6	1836.1	5.0	34.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2256.5	2256.6	.3	65.0			QL=6 ST=2 TYP=3
10	245	LEAR	43	NS	2336.0	0646.0	624.0D	41.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0302.8	0303.1	.3	25.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2133.5	2138.8	5.8D	19.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2133.8	2136.1	5.3	67.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2158.5	2201.8	6.5D	48.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2159.1	2206.1	1387.9D	30.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2159.3	2200.1	1.7	43.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

SEPTEMBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	2695	PALE	8	S	2200.3	2200.6	1.5	19.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2200.3	2201.3	2.0	23.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2201.1	2202.1	1.0D	22.0			QL=6 ST=2 TYP=3
11	245	SGMR	43	NS	1023.0	1849.6	752.0D	71.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1847.6	1848.0	577.4D	110.0			QL=6 ST=2 TYP=1
	4995	LEAR	4	S/F	0141.5	0151.3	13.6	11.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0141.8	0216.1	45.5	13.0			QL=6 ST=2 TYP=4
	15400	LEAR	4	S/F	0144.3	0227.1	50.7	13.0			QL=6 ST=2 TYP=4
	245	LEAR	4	S/F	0520.3	0522.5	4.5	34.0			QL=6 ST=2 TYP=3
12	1415	ATHN	43	NS	0545.8	0547.0	3.0D	24.0			QL=6 ST=2 TYP=1
	4995	ATHN	43	NS	0545.8	0547.1	3.8D	17.0			QL=6 ST=2 TYP=1
	2695	ATHN	43	NS	0546.0	0547.1	2.6D	23.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1025.0	1724.0	748.0D	24.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2239.0	2247.5	681.0D	190.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	0546.0	0547.1	5.1	11.0			QL=6 ST=2 TYP=4
	1415	LEAR	8	S	0546.1	0546.8	1.7	23.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0546.5	0546.6	1.0	33.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0546.5	0546.8	.5	23.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0546.6	0546.8	.4	19.0			QL=6 ST=2 TYP=3
13	245	LEAR	43	NS	0309.0	0330.3	411.0D	28.0			QL=6 ST=2 TYP=1
	245	PALE	8	S	0045.8	0045.8	.2	50.0			QL=5 ST=2 TYP=3
	8800	PALE	8	S	0319.0	0319.8	1.1	25.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	0319.1	0319.8	.9	40.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0319.3	0319.6	.8	10.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0319.5	0319.6	.6	17.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0319.5	0319.6	.6	16.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0328.6	0330.1	1.7	25.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1847.0	1902.0	17.0	81.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1853.1	1853.6	1.7D	7.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1853.1	1853.6	2.5D	11.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2035.6	2036.5	.9D	110.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2039.1	2040.0	1.4D	430.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2039.5	2040.0	.8	34.0			QL=6 ST=2 TYP=3
14	245	LEAR	43	NS	0300.6	0303.5	419.4D	78.0			QL=6 ST=2 TYP=1
	245	PALE	8	S	0303.3	0303.5	.7	100.0			QL=5 ST=2 TYP=3
	606	SGMR	8	S	1125.1	1126.1	1.7D	28.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1125.3	1126.3	1.7	220.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1125.3	1126.5	1.7D	93.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1126.0	1126.5	1.1D	33.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1137.3	1141.0	4.7	76.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1427.6	1428.0	2.5	200.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1432.1	1436.0	4.2D	139.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2046.1	2046.1	.5	52.0			QL=6 ST=2 TYP=3
15	15400	LEAR	8	S	0054.0	0054.1	.1	17.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0729.3	0730.3	2.8	13.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0729.5	0729.8	2.1	66.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0729.5	0730.1	.8	110.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0729.6	0729.8	2.5	13.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0729.6	0730.1	2.2	25.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0730.0	0730.3	1.5	43.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1138.8	1140.5	3.0	71.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1944.1	1944.3	.5	60.0			QL=5 ST=2 TYP=3
	245	PALE	8	S	2114.5	2115.6	2.0	170.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2155.8	2156.1	.5	250.0			QL=5 ST=2 TYP=3
16	245	LEAR	8	S	0234.6	0234.8	.2	48.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0706.0	0706.1	.3	69.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0706.0	0706.6	1.0	20.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1427.8	1428.0	2.2	64.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1659.5	1659.6	.6	41.0			QL=6 ST=2 TYP=3
17	245	LEAR	43	NS	2252.0	0146.3	670.0D	56.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0342.5	0342.6	.5	85.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1918.0	1918.3	.3	45.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1918.0	1918.3	.3	45.0			QL=6 ST=3 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
18	4995	SGMR	4	S/F	1802.8	1803.3	2.3	13.0			QL=6 ST=2 TYP=3
19	606	SGMR	8	S	1059.3	1059.8	2.0D	59.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1059.5	1100.1	2.1	24.0			QL=6 ST=2 TYP=3
20	245	SGMR	8	S	1916.1	1916.3	.7	38.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1916.1	1916.6	.7	40.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1932.8	1937.0	11.2D	10.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1933.0	1937.0	11.5	27.0			QL=6 ST=2 TYP=3
21	410	LEAR	8	S	0110.8	0111.3	1.5	21.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0111.5	0111.6	.8	19.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0111.6	0111.8	.4	37.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1236.6	1237.8	1.9	69.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1411.3	1412.1	1.5	30.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1947.8	1956.5	16.2D	38.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1948.6	1952.8	4.7	76.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	1954.1	1956.6	5.9	47.0			QL=6 ST=2 TYP=5
22	245	SGMR	43	NS	0134.0	1417.8	1262.0D	51.0			QL=6 ST=2 TYP=1
	606	LEAR	4	S/F	0538.1	0540.3	4.5	17.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0539.1	0540.3	3.0	45.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0539.1	0542.5	4.0	490.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1638.0	1643.1	6.5D	150.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1638.1	1643.1	6.4	13.0			QL=6 ST=2 TYP=4
23	245	LEAR	43	NS	0001.1	0111.1		260.0			QL=1 ST=3 TYP=1
	2695	ATHN	43	NS	1554.6	1600.0	10.4D	200.0			QL=5 ST=2 TYP=1
	4995	ATHN	43	NS	1555.5	1600.0	10.5D	119.0			QL=5 ST=2 TYP=1
	4995	LEAR	4	S/F	0221.1	0222.3	53.9	13.0			QL=1 ST=2 TYP=4
	2695	LEAR	4	S/F	0221.1	0222.3	53.9	9.0			QL=1 ST=2 TYP=4
	8800	LEAR	4	S/F	0221.1	0230.0	53.9	11.0			QL=1 ST=2 TYP=4
	15400	LEAR	4	S/F	0221.3	0230.1	53.7	16.0			QL=1 ST=2 TYP=4
	8800	LEAR	4	S/F	0439.0	0440.0	19.0	54.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0439.0	0440.0	19.0	22.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0439.0	0440.0	19.0	40.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0439.0	0441.0	19.0	30.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0549.8	0550.1	.5	27.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	0550.0	0550.1	.1	22.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0654.6	0654.8	1.5	460.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0654.6	0656.0	1.4D	17.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0654.6	0656.0	1.7	160.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0654.6	0656.0	1.7	220.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0654.6	0656.0	2.0	470.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0654.6	0656.1	1.5	31.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1309.6	1309.8	.5	28.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1552.0	1603.3	16.0	9.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1552.1	1600.6	15.7D	130.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1552.5	1559.8	12.5D	60.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1553.3	1600.6	15.0D	150.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1553.8	1559.0	11.2D	9.0			QL=6 ST=2 TYP=4
	1415	SGMR	4	S/F	1553.8	1600.8	13.2D	37.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1555.0	1600.6	11.0D	119.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1556.1	1557.1	7.9D	3.0			QL=5 ST=2 TYP=3
	8800	ATHN	4	S/F	1556.3	1600.1	9.7D	16.0			QL=5 ST=2 TYP=4
	15400	SGMR	4	S/F	1557.0	1600.1	5.0D	27.0			QL=6 ST=2 TYP=3
24	245	LEAR	43	NS	0251.0	0843.0	433.0D	51.0			QL=6 ST=2 TYP=1
	8800	LEAR	47	GB	0545.3	0545.6	.7	1300.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0604.8	0605.1	.5	30.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0605.0	0605.1	.3	73.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0728.0	0728.1	1.1	110.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0728.3	0728.3	.7	330.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0730.3	0732.0	3.0	230.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0730.3	0732.6	2.8	290.0			QL=6 ST=3 TYP=5
	4995	ATHN	4	S/F	0730.5	0732.5	4.1D	139.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0730.5	0732.6	4.1D	139.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0730.5	0732.6	4.1D	88.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0730.5	0732.8	3.5	190.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0730.5	0732.8	4.6	130.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
24	4995	LEAR	4	S/F	0730.6	0732.5	3.2	160.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0730.6	0732.8	3.5	170.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0731.0	0733.3	7.0D	300.0			QL=6 ST=2 TYP=5
	2695	MANI	4	S/F	0731.1	0733.3	4.5D	91.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0731.3	0732.8	2.5	100.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0732.0	0732.8	4.1	77.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0732.3	0732.5	1.0	84.0			QL=6 ST=2 TYP=3
	4995	MANI	8	S	0733.0	0733.3	1.8	80.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0742.8	0743.8	1.0D	40.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0743.6	0743.8	.2	30.0			QL=6 ST=2 TYP=3
25	410	LEAR	43	NS	0430.0	0505.6	334.0D	24.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0430.0	0727.1	334.0D	51.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2310.0	0239.6	653.0D	130.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0102.3	0102.6	1.0	1100.0			QL=6 ST=2 TYP=5
	245	PALE	8	S	2308.5	2309.1	1.1	160.0			QL=5 ST=2 TYP=3
	245	LEAR	8	S	2308.5	2309.1	.6	88.0			QL=6 ST=2 TYP=3
26	245	SGMR	43	NS	1040.0	1934.1	709.0D	23.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2310.0	0239.6	653.0D	130.0			QL=6 ST=3 TYP=1
	245	PALE	8	S	0239.6	0239.6	.2	150.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	2159.1	2201.8	6.7D	880.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2200.8	2201.5	1.0	1399.0			QL=6 ST=2 TYP=5
	1415	PALE	8	S	2200.8	2201.6	1.8	68.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2200.8	2202.3	2.3D	190.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2200.8	2202.3	1.8	340.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2201.0	2201.8	2.3	71.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2201.5	2201.6	.3	24.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2201.5	2201.6	.3	23.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2201.5	2201.6	.3	57.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2201.6	2201.6	.2	18.0			QL=6 ST=2 TYP=3
27	245	SGMR	43	NS	1041.0	1200.6	706.0D	64.0			QL=6 ST=2 TYP=1
	606	MANI	47	GB	0119.8	0121.1	8.8D	119.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0120.6	0120.6	1.5	3100.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	0120.6	0120.6	2.5	500.0			QL=6 ST=2 TYP=5
	4995	PALE	8	S	0120.6	0121.0	1.7	59.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0120.6	0121.0	1.5	97.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	0120.6	0121.0	1.4	71.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0120.6	0121.0	3.5	360.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	0120.6	0121.8	2.7	75.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0120.6	0122.5	8.0D	74.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0121.1	0121.6	7.5D	180.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0121.1	0121.6	7.5	93.0			QL=6 ST=2 TYP=4
	4995	SGMR	8	S	1459.3	1500.0	1.2D	19.0			QL=6 ST=3 TYP=3
	2695	SGMR	8	S	1459.5	1500.0	1.1D	34.0			QL=6 ST=3 TYP=3
	8800	SGMR	8	S	1459.5	1500.0	.8D	13.0			QL=6 ST=3 TYP=3
	1415	SGMR	8	S	1459.6	1459.8	1.2D	26.0			QL=6 ST=3 TYP=3
	410	SGMR	8	S	1459.8	1459.8	.7	100.0			QL=6 ST=3 TYP=3
	410	SGMR	4	S/F	1737.1	1739.5	2.7	91.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	1739.1	1739.1	.5	680.0			QL=5 ST=2 TYP=5
	606	PALE	8	S	1914.8	1915.1	1.3	25.0			QL=5 ST=2 TYP=3
	410	PALE	8	S	1914.8	1916.0	1.3	95.0			QL=5 ST=2 TYP=3
28	410	LEAR	43	NS	0434.0	0438.0	116.0	57.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0441.1	0536.8	168.9	34.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0602.6	0604.6	3.2	42.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0602.6	0604.6	3.2	42.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0955.8	0955.8	.5	99.0			QL=5 ST=2 TYP=3
	245	LEAR	8	S	0955.8	0956.0	.8	27.0			QL=5 ST=2 TYP=3
	410	LEAR	8	S	0955.8	0956.1	.3	24.0			QL=5 ST=2 TYP=3
	606	SGMR	8	S	1354.0	1354.3	1.1	84.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1423.3	1423.6	.7	600.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2323.8	2324.5	1.8	28.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2324.8	2325.0	.3	7.0			QL=6 ST=2 TYP=3
29	245	LEAR	43	NS	0630.5	0631.5	144.5	37.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0704.0	0709.8	22.8	13.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0001.0	0001.1	.5	3.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0001.0	0001.3	.5	11.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	245	LEAR	8	S	0254.8	0254.8	.3	63.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0524.0	0524.1	.5	25.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0839.8	0840.0	.3	79.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0839.8	0840.1	.5	21.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0840.0	0840.1	.3	6.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2239.0	2239.1	.3	20.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	2239.0	2239.1	.3	75.0			QL=6 ST=3 TYP=3
	606	MANI	8	S	2239.1	2240.0	2.0D	7.0			QL=6 ST=2 TYP=4
	4995	MANI	8	S	2239.1	2240.3	2.0D	130.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	2239.1	2240.3	2.7	100.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	2239.1	2240.5	3.0D	13.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	2239.1	2240.5	3.0D	21.0			QL=6 ST=2 TYP=4
	4995	LEAR	8	S	2239.8	2240.0	.5	34.0			QL=6 ST=3 TYP=3
	15400	LEAR	8	S	2239.8	2240.0	.8	1.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	2239.8	2240.0	.5	66.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	2239.8	2240.0	1.0	27.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	2239.8	2240.1	.5	15.0			QL=6 ST=3 TYP=3
	1415	LEAR	8	S	2240.0	2240.1	1.1	18.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	2357.1	2357.1	.2	72.0			QL=6 ST=2 TYP=3
30	245	LEAR	43	NS	2221.0	0837.1	704.0D	30.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0743.3	0743.6	1.0	60.0			QL=6 ST=2 TYP=3
	8800	SGMR	47	GB	1812.3	1822.8	25.3	62.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	1814.0	1814.1	.3	13.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	1814.1	1814.3	.4	15.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1814.6	1822.5	20.7	57.0			QL=6 ST=2 TYP=5
	606	PALE	47	GB	1814.8	1830.5	64.2	4300.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	1816.1	1817.5	14.9	110.0			QL=6 ST=2 TYP=5
	15400	PALE	8	S	1818.0	1818.1	.3	22.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	1818.1	1818.3	.4	17.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
01	1415	LEAR	8	S	0022.0	0022.3	.6	5.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0022.0	0022.3	.8	8.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0022.1	0022.3	.5	77.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0022.6	0023.1	.9	139.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0035.5	0037.3	2.1	21.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0035.6	0036.0	2.2	7.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0035.6	0036.1	2.2	11.0			QL=6 ST=3 TYP=3
	606	LEAR	4	S/F	0035.6	0037.1	2.2	11.0			QL=6 ST=3 TYP=3
	4995	LEAR	8	S	0035.6	0037.3	2.0	18.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0035.8	0036.1	2.0	8.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0035.8	0037.0	1.7	530.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	0037.6	0037.8	.5	1000.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0137.0	0138.5	1.6	1199.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	0139.0	0139.3	.5	1199.0			QL=1 ST=2 TYP=5
	4995	SGMR	4	S/F	1252.5	1253.8	6.6D	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1252.5	1255.3	5.8D	16.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1252.6	1253.5	2.9D	13.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1252.6	1255.0	5.5D	17.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1252.8	1253.6	3.7D	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1253.0	1254.1	4.0	13.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1253.0	1254.1	4.0D	16.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1253.1	1255.6	7.2	19.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1506.1	1507.0	5.2	2000.0			QL=6 ST=2 TYP=5
	1415	ATHN	4	S/F	1506.6	1507.5	3.4D	16.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1506.8	1507.5	3.7	23.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1507.0	1507.5	4.6D	45.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	1507.0	1507.5	1.8D	28.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2002.0	2002.5	.6	47.0			QL=6 ST=2 TYP=3
02	2695	LEAR	4	S/F	0156.5	0157.3	3.1	88.0			QL=6 ST=2 TYP=3
	606	MANI	4	S/F	0311.6	0313.1	5.4D	13.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0312.0	0313.1	4.0D	22.0			QL=6 ST=2 TYP=4
	8800	MANI	4	S/F	0312.0	0313.1	4.0	25.0			QL=6 ST=2 TYP=4
	4995	MANI	4	S/F	0312.0	0313.1	4.0D	25.0			QL=6 ST=2 TYP=4
	1415	MANI	4	S/F	0312.0	0313.1	4.0D	18.0			QL=6 ST=2 TYP=4
	410	LEAR	8	S	0312.3	0312.5	.5	32.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0312.6	0313.1	.7	400.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0312.8	0313.1	.8	23.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0312.8	0313.3	2.2	24.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0313.0	0313.3	.5	21.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0313.0	0314.6	2.1	27.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0313.1	0313.1	.2	13.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0314.3	0314.3	.2	13.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0557.3	0558.3	2.2	800.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0558.3	0559.1	.8	95.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	2158.3	2158.5	4.0	1300.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	2158.6	2159.1	5.7	150.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	2158.6	2159.1	1.5	540.0			QL=6 ST=2 TYP=5
	4995	PALE	8	S	2158.6	2159.3	1.4	240.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2158.6	2159.3	3.7	170.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2158.6	2159.3	2.0	190.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2158.6	2159.5	6.0	300.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2158.6	2159.5	4.7	3200.0			QL=6 ST=2 TYP=5
	15400	PALE	8	S	2158.8	2159.1	1.3	420.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	2158.8	2159.1	6.0D	740.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	2158.8	2159.1	5.5D	260.0			QL=6 ST=2 TYP=3
03	245	LEAR	8	S	0139.6	0140.0	.7	290.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0139.8	0140.0	.5	28.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0535.1	0535.5	.7	35.0			QL=6 ST=2 TYP=3
04	245	LEAR	8	S	0146.1	0146.8	.9	26.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0146.3	0146.8	.7	30.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0249.1	0249.3	.2	13.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	2145.3	2149.3	9.2	50.0			QL=6 ST=2 TYP=5
05	245	LEAR	8	S	0719.8	0720.1	.5	16.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	2117.1	2117.5	2.5	110.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2117.8	2118.6	2.5	87.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2118.1	2118.6	.9D	16.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
06	245	LEAR	8	S	0009.6	0009.8	.2	51.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0009.6	0009.8	.5	47.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0117.3	0120.1	5.8	119.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0118.1	0120.1	4.0	60.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0408.8	0410.1	2.3	57.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0807.1	0807.8	2.9	87.0			QL=6 ST=2 TYP=3
	8800	MANI	47	GB	0854.8	0855.0	4.2	670.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0855.0	0855.1	.6	900.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0855.0	0855.3	1.8	410.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0855.0	0855.3	2.6	280.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0855.0	0855.3	1.5	220.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0855.0	0855.5	5.8D	90.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0855.0	0855.5	5.8D	37.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0855.1	0855.1	.4	51.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0855.1	0855.3	1.2	29.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0855.1	0855.3	2.7	98.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0855.1	0855.3	.5	150.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0855.1	0855.5	5.7D	300.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0855.3	0855.5	5.5	470.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1436.5	1436.6	1.0D	13.0			QL=6 ST=3 TYP=3
	245	SGMR	4	S/F	1436.5	1437.3	4.6	77.0			QL=6 ST=3 TYP=3
07	245	LEAR	43	NS	0347.8	0351.8	379.2D	100.0			QL=6 ST=2 TYP=1
	8800	LEAR	4	S/F	0425.3	0426.8	2.3	21.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0858.3	0859.0	3.7	119.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0858.3	0859.0	1.7D	82.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0928.3	0928.8	.8	31.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0928.3	0929.0	1.7D	40.0			QL=6 ST=3 TYP=3
	8800	ATHN	4	S/F	0928.3	0929.0	3.7	26.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	0928.5	0928.6	.3	24.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1131.6	1132.6	1.7	87.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1426.6	1430.3	7.0D	15.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1428.5	1430.1	5.1	13.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1507.3	1507.6	.5D	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1508.5	1509.0	1.0	39.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1720.3	1721.1	2.0D	70.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1720.6	1721.1	2.0D	55.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1720.6	1721.1	1.7	35.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1720.6	1721.3	1.5D	13.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1720.8	1721.1	1.5	62.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1721.0	1721.3	.6	47.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1721.1	1721.3	.5	44.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	1724.3	1727.8	4.3	31.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	1724.5	1727.8	7.0	45.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	1725.1	1727.1	4.2	16.0			QL=6 ST=2 TYP=3
	2695	PALE	4	S/F	1725.3	1727.3	4.2	15.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1854.3	1854.8	.7D	11.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	1855.8	1855.8	.5	190.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1855.8	1856.0	.7	190.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1855.8	1901.0	6.2D	30.0			QL=6 ST=2 TYP=3
	4995	LEAR	47	GB	2306.1	2308.6	13.0	530.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	2306.1	2308.6	12.4	250.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	2306.5	2308.6	35.3	500.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	2306.6	2308.6	11.7	530.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2306.8	2308.6	35.0	300.0			QL=6 ST=2 TYP=5
	2695	PALE	47	GB	2306.8	2308.6	19.3	220.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	2307.0	2308.6	8.3	210.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2307.3	2308.6	34.5	750.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	2308.1	2318.0	11.9	110.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	2315.6	2318.1	9.5	94.0			QL=6 ST=2 TYP=5
	606	PALE	8	S	2317.1	2317.8	1.2	31.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2317.5	2317.8	.3	20.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	2321.1	2337.0	28.9	86.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	2321.6	2322.1	2.4	89.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2324.8	2324.8	.2	130.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	2325.0	2337.0	60.0	35.0			QL=6 ST=2 TYP=4
	245	PALE	4	S/F	2326.0	2337.3	15.8	48.0			QL=6 ST=2 TYP=4
08	245	SGMR	43	NS	1800.0	1814.3	248.0	26.0			QL=6 ST=2 TYP=1
	15400	LEAR	8	S	0141.0	0141.1	.8	27.0			QL=6 ST=3 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
08	8800	LEAR	4	S/F	0141.0	0141.5	4.5	45.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0141.0	0142.3	6.5	9.0			QL=6 ST=3 TYP=3
	15400	PALE	8	S	0141.1	0141.3	.2	30.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0141.1	0141.5	2.0	29.0			QL=6 ST=3 TYP=3
	4995	PALE	8	S	0141.1	0141.5	1.0	30.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0141.1	0141.5	1.4	20.0			QL=6 ST=3 TYP=3
	8800	PALE	8	S	0141.1	0141.5	1.0	51.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0141.1	0142.0	1.5	20.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0141.3	0141.5	1.5	1.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0141.6	0141.8	1.0	26.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0141.8	0142.1	2.3	26.0			QL=6 ST=3 TYP=3
	410	PALE	8	S	0142.0	0142.1	.1	78.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0206.6	0206.8	1.4	19.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0217.0	0217.5	1.5	35.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0222.3	0222.6	.5	24.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1153.6	1155.1	7.5D	28.0			QL=5 ST=2 TYP=4
	4995	SGMR	4	S/F	1154.0	1155.1	8.6D	27.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1154.1	1154.3	5.9D	48.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1154.1	1155.0	2.9D	18.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1154.1	1155.1	10.4D	47.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1154.1	1155.8	22.0	35.0			QL=5 ST=2 TYP=4
	15400	SGMR	4	S/F	1154.3	1155.1	8.3	22.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1154.3	1155.3	3.3D	13.0			QL=5 ST=2 TYP=4
	2695	ATHN	4	S/F	1154.5	1154.6	2.1D	11.0			QL=5 ST=2 TYP=4
	1415	SGMR	4	S/F	1154.8	1156.1	5.2D	16.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1156.1	1156.1	.5D	10.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1314.1	1314.3	.4	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	407.3	1411.8	7.0D	41.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1410.6	1411.8	6.0D	20.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1410.8	1411.8	2.2D	17.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1411.0	1411.6	3.0	24.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1412.1	1412.8	11.0D	139.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1412.3	1412.8	1.3D	18.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1534.8	1535.6	2.3	280.0			QL=6 ST=2 TYP=3
	606	SGMR	47	GB	1535.0	1535.5	4.0D	540.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	1535.6	1535.8	3.4D	470.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1915.8	1916.5	3.3	19.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1916.0	1916.5	2.1D	17.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1916.1	1916.5	2.9D	17.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2021.3	2028.3	12.7D	280.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	2022.8	2028.1	16.2D	170.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2023.0	2025.3	11.0D	62.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	2023.1	2024.8	7.9	37.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	2023.3	2028.3	15.7D	220.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2023.8	2029.1	11.2D	40.0			QL=6 ST=2 TYP=3
	2695	PALE	47	GB	2024.3	2028.3	7.2	110.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	2024.8	2028.3	6.3	150.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2025.1	2025.1	6.2	310.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	2025.3	2028.8	9.7D	59.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2025.5	2028.5	13.5D	230.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	2026.1	2028.3	4.5	190.0			QL=6 ST=2 TYP=5
	15400	SGMR	4	S/F	2026.5	2028.6	6.5	78.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	2026.6	2028.6	4.5	48.0			QL=6 ST=2 TYP=5
	15400	PALE	4	S/F	2027.1	2028.5	5.7	84.0			QL=6 ST=2 TYP=3
	606	PALE	4	S/F	2027.1	2029.1	4.4	32.0			QL=6 ST=2 TYP=3
09	245	LEAR	43	NS	0159.3	0718.3	488.7D	200.0			QL=6 ST=2 TYP=1
	245	PALE	8	S	0205.3	0205.5	.3	47.0			QL=6 ST=3 TYP=3
	4995	LEAR	8	S	0236.0	0236.1	.6	24.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	0236.0	0236.5	.5	17.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0238.6	0239.6	2.2	18.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0238.6	0239.6	6.5	24.0			QL=6 ST=2 TYP=4
	606	LEAR	8	S	0240.1	0240.8	1.9	21.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0240.3	0240.3	.2	21.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0240.3	0240.5	.3	25.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0240.6	0242.6	2.0D	16.0			QL=6 ST=2 TYP=4
	2695	PALE	8	S	0321.6	0321.8	.7	29.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0321.6	0322.1	.7	24.0			QL=6 ST=3 TYP=3
	1415	PALE	8	S	0321.8	0322.1	.3D	13.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0322.0	0322.3	.3	19.0			QL=6 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
09	1415	LEAR	8	S	0357.3	0357.6	1.5	55.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0357.3	0358.5	1.7	150.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0357.8	0358.1	.5	18.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0357.8	0358.3	.5	17.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0742.3	0742.8	.7	97.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0743.0	0743.5	.8	21.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0743.1	0743.3	.4	18.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0743.1	0743.3	.7	24.0			QL=6 ST=2 TYP=3
	4995	ATHN	47	GB	1123.5	1124.8	37.1D	830.0			QL=6 ST=3 TYP=5
	4995	SGMR	47	GB	1123.5	1125.1	10.5D	850.0			QL=6 ST=3 TYP=5
	8800	SGMR	47	GB	1123.5	1125.1	10.5D	2900.0			QL=6 ST=3 TYP=5
	8800	ATHN	47	GB	1123.6	1125.1	42.2	1300.0			QL=6 ST=3 TYP=5
	15400	SGMR	47	GB	1123.8	1124.8	9.2	680.0			QL=6 ST=3 TYP=5
	2695	SGMR	47	GB	1123.8	1128.3	10.2D	350.0			QL=6 ST=3 TYP=5
	2695	ATHN	47	GB	1123.8	1128.3	42.8D	360.0			QL=6 ST=3 TYP=5
	245	SGMR	4	S/F	1124.0	1125.1	5.8D	23.0			QL=6 ST=3 TYP=3
	1415	ATHN	4	S/F	1124.0	1128.6	31.5D	94.0			QL=6 ST=3 TYP=4
	1415	SGMR	4	S/F	1125.1	1128.8	9.9D	76.0			QL=6 ST=3 TYP=3
	606	SGMR	4	S/F	1142.3	1142.6	2.7D	33.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1143.0	1146.5	5.0	15.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1144.1	1144.8	2.2D	100.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1145.6	1145.6	.4D	39.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1748.8	1749.8	2.8D	8.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1749.1	1749.8	1.4	13.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1849.6	1857.6	10.7	51.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1928.3	1930.0	3.8D	13.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1929.6	1930.0	2.5	30.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1929.6	1930.0	.5	27.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1930.8	1931.1	.5D	48.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1946.1	1946.3	.5	110.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1946.1	1946.3	.5	99.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	194.1	1946.3	1.4	68.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1946.1	1946.5	1.5D	119.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1946.1	1946.5	.9D	9.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1956.8	1959.1	5.2D	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1957.5	1959.1	3.6	27.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1958.5	1959.1	.8	26.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1958.8	1958.8	.2	13.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2219.6	2220.3	1.9	21.0			QL=6 ST=2 TYP=3
10	245	SGMR	43	NS	1055.0	1900.6	669.0D	170.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	2130.0	0242.1	390.0D	119.0			QL=6 ST=2 TYP=1
	2695	PALE	8	S	0126.5	0126.8	.6	28.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0126.5	0126.8	.5	26.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0126.6	0126.8	.4	25.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0126.6	0126.8	.5	27.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0126.6	0126.8	.5	38.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0126.6	0126.8	.5	44.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0346.3	0346.5	.5	240.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0346.3	0346.6	.8	430.0			QL=6 ST=2 TYP=5
	606	LEAR	47	GB	0346.3	0346.6	.7	55.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0612.6	0612.8	.5	38.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1047.6	1053.6	21.0D	22.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1047.8	1053.6	22.0	36.0			QL=6 ST=2 TYP=4
	2695	ATHN	4	S/F	1048.0	1050.6	12.8D	8.0			QL=6 ST=2 TYP=4
	4995	SGMR	4	S/F	1509.1	1511.3	4.9D	11.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1509.5	1511.3	3.1	13.0			QL=6 ST=2 TYP=4
	245	SGMR	8	S	1510.8	1510.8	.7D	73.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1944.0	1945.1	3.3	29.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1944.8	1945.0	.3	28.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2105.0	2105.1	.3	19.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2254.6	2254.8	.4	85.0			QL=6 ST=2 TYP=3
11	245	SGMR	43	NS	1057.0	1943.8	666.0D	360.0			QL=6 ST=3 TYP=1
	245	PALE	43	NS	1646.0	1651.3	672.0D	52.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2342.0	0134.1	627.0	69.0			QL=6 ST=2 TYP=1
	8800	LEAR	4	S/F	0349.5	0357.6	15.5	180.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0357.1	0357.6	7.9	67.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0357.1	0357.6	5.2D	78.0			QL=6 ST=2 TYP=4
	2695	MANI	4	S/F	0357.3	0357.5	4.5D	34.0			QL=6 ST=2 TYP=4

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	606	MANI	4	S/F	0357.3	0357.6	3.2D	17.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0357.3	0357.6	6.2	28.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0357.3	0357.6	14.7	46.0			QL=6 ST=2 TYP=4
	410	LEAR	8	S	0357.5	0357.6	.5	110.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0357.5	0357.6	4.6	19.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0530.8	0531.3	2.7	16.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0610.1	0610.3	2.9	22.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0610.3	0610.6	.8	17.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0842.1	0845.5	10.5D	67.0			QL=5 ST=2 TYP=3
	2695	ATHN	4	S/F	0842.5	0845.5	7.8D	34.0			QL=5 ST=2 TYP=3
	8800	LEAR	8	S	0844.1	0845.3	1.7	36.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0844.1	0845.3	2.5	28.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0844.1	0845.3	2.5	34.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0844.1	0846.0	6.5	20.0			QL=5 ST=2 TYP=3
	606	SGMR	8	S	1323.5	1324.6	1.3D	99.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1324.3	1324.6	.7D	13.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1324.6	1324.8	.4	7.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1337.1	1337.6	1.2D	17.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1337.1	1337.8	1.4	11.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1337.8	1338.8	1.3D	65.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1626.8	1626.8	.3	450.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1626.8	1626.8	.3D	57.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1626.8	1627.0	.3D	87.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1741.1	1741.6	1.7	130.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	2013.0	2017.5	7.3D	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	2014.3	2017.3	4.8D	52.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2016.0	2016.3	1.0	87.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2108.6	2109.0	.4D	15.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2109.0	2109.1	.1	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2304.6	2304.8	.2	58.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2344.6	2344.6	.2	36.0			QL=6 ST=2 TYP=3
12	245	SGMR	43	NS	1058.0	1156.1	663.0D	63.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2238.0	2259.8	692.0D	270.0			QL=6 ST=2 TYP=1
	4995	LEAR	8	S	0007.0	0007.3	.3	16.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0137.8	0138.1	.5	40.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0137.8	0138.1	.5	82.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0158.6	0158.8	1.5	260.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0258.6	0258.8	.4	88.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0258.6	0258.8	.4	97.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0259.1	0259.3	.2	88.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0428.0E	0430.3	4.5D	320.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0429.0	0430.5	2.1	15.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0429.5E	0430.1	2.5D	70.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0540.1	0542.3	3.0	24.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0715.8	0725.5	25.2	9.0			QL=6 ST=2 TYP=4
	4995	LEAR	4	S/F	0716.3	0724.3	24.5	20.0			QL=6 ST=2 TYP=4
	8800	LEAR	4	S/F	0716.3	0728.3	23.3	15.0			QL=6 ST=2 TYP=4
	2695	LEAR	4	S/F	0718.0	0729.0	23.5	16.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0718.1	0724.6	11.0	45.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0721.0	0728.3	18.0	9.0			QL=6 ST=2 TYP=4
	245	LEAR	8	S	0818.6	0819.3	.7	51.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0923.3	0923.5	.8	55.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0923.3	0923.5	13.8	55.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0928.6	0929.6	3.5	33.0			QL=6 ST=3 TYP=3
	245	LEAR	4	S/F	0941.3	0941.6	2.5	49.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1320.5	1320.6	.6D	110.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1320.6	1320.8	.5	8.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1519.0	1521.1	6.0	119.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1519.0	1521.1	4.6D	33.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1519.1	1521.1	5.9D	65.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1519.1	1521.8	5.4D	150.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1519.6	1521.6	4.4D	27.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1520.3	1521.1	4.7D	57.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1520.3	1521.1	4.7D	32.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1520.3	1521.1	2.8D	9.0			QL=6 ST=2 TYP=4
	8800	SGMR	4	S/F	1553.1E	1554.0	2.4D	100.0			QL=5 ST=2 TYP=3
	4995	SGMR	4	S/F	1553.1	1554.0	2.5D	41.0			QL=5 ST=2 TYP=3
	245	SGMR	8	S	1609.0	1609.8	1.1	310.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1636.0	1637.1	2.8D	43.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
12	4995	SGMR	4	S/F	1636.0	1637.1	3.0D	39.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1636.1	1636.3	3.0	15.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1636.1	1637.1	3.0D	39.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	2258.6	2300.1	3.4	28.0			QL=6 ST=2 TYP=3
13	410	SGMR	43	NS	1059.0	1245.8	660.0D	46.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1059.0	1636.1	660.0D	139.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2209.0	0648.6	721.0D	250.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2209.0	0826.0	721.0D	48.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0107.6	0108.0	.5	250.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0107.6	0108.1	.5	280.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0117.3	0117.6	.5	19.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0616.8	0617.6	2.8D	72.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	0616.8	0617.8	4.3D	47.0			QL=6 ST=2 TYP=3
	1415	ATHN	8	S	0616.8	0617.8	1.7D	30.0			QL=6 ST=2 TYP=4
	606	LEAR	4	S/F	0617.1	0617.3	2.2	100.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0617.1	0617.5	1.4	59.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0617.1	0617.6	1.2	31.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0617.1	0617.6	1.5	41.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0617.1	0617.8	4.5	35.0			QL=6 ST=2 TYP=4
	410	LEAR	4	S/F	0617.1	0619.1	2.2	56.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0617.3	0617.6	1.8	150.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0617.6	0617.6	.2	23.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0743.0	0745.5	5.3	19.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0743.0	0745.5	4.6	21.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0745.1	0745.5	1.0	19.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0943.3	0943.5	.5	28.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0943.3	0943.8	.7	38.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0943.3	0944.0	3.0	61.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0943.3	0944.1	1.7	82.0			QL=2 ST=2 TYP=3
	2695	ATHN	8	S	0943.3	0944.5	1.7	26.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1504.8	1505.8	2.3D	20.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1505.1	1505.3	.7D	119.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1505.1	1506.0	1.9	11.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1647.8	1648.5	1.2D	19.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1648.0	1648.1	1.3	22.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1931.3	1932.1	2.5D	30.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1931.6	1932.1	2.4	17.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1931.8	1932.3	1.2	28.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1932.1	1932.1	.5	26.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	1932.1	1932.3	.2	17.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1956.3	1956.8	5.7D	29.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1956.5	1958.1	4.6D	28.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1956.8	1958.5	5.0D	350.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1958.3	1958.5	.7	15.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2009.3	2010.1	2.0	6.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	2009.8	2010.5	1.2D	27.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	2030.1	2035.5	8.2	210.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2031.5	2031.6	4.5D	30.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2035.1	2035.8	2.0D	67.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2035.5	2035.8	.8	66.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2214.8	2215.1	.8	27.0			QL=3 ST=2 TYP=3
	4995	PALE	8	S	2214.8	2215.1	.8	21.0			QL=3 ST=2 TYP=3
	8800	PALE	8	S	2214.8	2215.3	.8	47.0			QL=3 ST=2 TYP=3
	15400	PALE	8	S	2214.8	2215.3	.8	44.0			QL=3 ST=2 TYP=3
14	410	SGMR	43	NS	1100.0	2041.1	658.0D	210.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1100.0	2041.1	658.0D	490.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	1817.0	668.0D	460.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1822.0	0210.1	571.0D	110.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2209.0	0716.5	721.0D	150.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2209.0	0751.3	721.0D	350.0			QL=6 ST=2 TYP=1
	410	LEAR	4	S/F	0009.5	0012.1	3.3	15.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0011.1	0011.5	1.2	38.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0011.1	0011.8	1.9	18.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0011.3	0011.5		31.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0011.3	0011.8	1.0	150.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0011.3	0011.8	.8	26.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0011.3	0012.0	1.0	20.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0011.5	0011.6		26.0			QL=6 ST=3 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
14	245	PALE	8	S	0011.5	0012.0	.6	200.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0011.5	0012.0	.5	19.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0011.8	0012.1		13.0			QL=6 ST=3 TYP=3
	4995	LEAR	8	S	0121.8	0123.1	2.0	15.0			QL=6 ST=2 TYP=4
	8800	LEAR	8	S	0122.1	0122.1	.7	13.0			QL=6 ST=2 TYP=4
	2695	LEAR	8	S	0122.3	0123.1	1.5	16.0			QL=6 ST=2 TYP=4
	8800	PALE	8	S	0202.1	0202.3	.2	18.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0202.1	0202.3	.4	18.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0237.5	0237.6	2.1	21.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0245.5	0246.5	1.1	22.0			QL=6 ST=2 TYP=3
	4995	PALE	47	GB	0246.8	0248.6	2.3	16.0			QL=6 ST=2 TYP=5
	8800	PALE	8	S	0251.1	0251.1	.2	20.0			QL=6 ST=2 TYP=4
	4995	PALE	4	S/F	0251.1	0302.6	21.7	24.0			QL=6 ST=2 TYP=4
	2695	PALE	47	GB	0253.8	0254.5	.7D	15.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0337.1	0337.5	.5	56.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0337.3	0337.3	.3	280.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0337.3	0337.5	.5	190.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0337.3	0337.5	.3	260.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0337.3	0337.6	.3	400.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0541.1	0542.6	14.4	920.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	0541.1	0542.8	14.4	340.0			QL=6 ST=3 TYP=3
	1415	MANI	47	GB	0541.5	0543.5	57.3D	110.0			QL=6 ST=3 TYP=5
	2695	MANI	47	GB	0541.5	0543.6	54.5D	260.0			QL=6 ST=3 TYP=5
	4995	MANI	47	GB	0541.5	0543.8	57.6D	1199.0			QL=6 ST=3 TYP=5
	8800	MANI	47	GB	0541.5	0544.0	69.6	1000.0			QL=6 ST=3 TYP=5
	15400	LEAR	4	S/F	0541.6	0542.6	11.5	480.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0541.6	0542.8	10.0	119.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0542.3	0543.3	2.5	43.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0556.0	0603.3	8.6	200.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0557.5	0608.3	72.5	740.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	0557.5	0608.3	65.5	410.0			QL=6 ST=3 TYP=3
	606	MANI	47	GB	0559.0	0629.8	45.8D	68.0			QL=6 ST=3 TYP=5
	15400	LEAR	4	S/F	0601.5	0608.3	66.5	340.0			QL=6 ST=3 TYP=3
	1415	LEAR	4	S/F	0606.5	0619.1	39.5	110.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0606.5	0619.1	39.5	290.0			QL=6 ST=2 TYP=3
	606	LEAR	4	S/F	0609.0	0619.8	26.0	110.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0618.1	0619.5	4.0	78.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0727.8	0728.6	2.2	1000.0			QL=6 ST=2 TYP=5
	8800	SGMR	4	S/F	1344.6	1345.6	3.2	18.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1345.1	1347.5	6.4D	93.0			QL=6 ST=2 TYP=3
	606	PALE	8	S	2153.5	2153.6	.3	89.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2154.1	2154.3	.4	220.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2308.3	2308.5	.3	110.0			QL=6 ST=2 TYP=3
15	410	SGMR	43	NS	1101.0	1723.0	655.0D	119.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1101.0	1734.5	655.0D	320.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2208.0	0445.8	723.0D	170.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2208.0	0509.8	723.0D	410.0			QL=6 ST=2 TYP=1
	4995	LEAR	8	S	0107.5	0107.6	1.0	15.0			QL=6 ST=2 TYP=3
	8800	MANI	4	S/F	0228.3	0230.8	3.7	53.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0228.5	0230.5	3.5D	63.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0229.0	0230.3	5.1	50.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0230.0	0230.3	.8	41.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0230.0	0230.8	1.0	41.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0240.1	0240.3	1.7	119.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0304.1	0305.3	3.0	11.0			QL=6 ST=2 TYP=4
	1415	LEAR	4	S/F	0304.8	0305.0	2.2	30.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0420.5	0420.6	.8	170.0			QL=6 ST=3 TYP=3
	1415	MANI	47	GB	0505.0	0509.8	31.3	139.0			QL=6 ST=2 TYP=5
	1415	LEAR	47	GB	0509.5	0509.8	54.1	220.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0510.3	0549.6	53.3	38.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0511.1	0559.3	52.5	28.0			QL=6 ST=2 TYP=5
	4995	LEAR	47	GB	0512.3	0552.5	51.3	37.0			QL=6 ST=2 TYP=5
	606	LEAR	47	GB	0513.0	0521.5	21.3	40.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	0513.3	0527.6	50.3	46.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0806.1	0806.5	.9	25.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0806.3	0806.3	.2	13.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0921.3	0922.0	6.8	180.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0921.5	0942.1	20.6D	119.0			QL=6 ST=2 TYP=5
	606	LEAR	47	GB	0931.1	0931.3	.2	13.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
15	1415	SGMR	4	S/F	1242.8	1243.0	5.2D	23.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1242.8	1244.0	5.7D	29.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1243.1	1244.0	4.7	33.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1243.1	1244.1	4.9D	21.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1243.3	1244.1	5.2D	60.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1243.3	1244.3	6.5	54.0			QL=6 ST=2 TYP=4
	2695	ATHN	8	S	1243.6	1244.0	.7D	15.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1549.1	1549.6	4.7	20.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1549.3	1550.0	4.7D	7.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1601.0	1603.0	3.6D	10.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1601.6	1603.1	2.0	22.0			QL=6 ST=2 TYP=3
16	245	SGMR	43	NS	1102.0	1820.5	652.0D	180.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1102.0	1916.8	652.0D	180.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1646.0	1833.8	665.0D	180.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1646.0	1919.1	665.0D	280.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2207.0	2311.5	724.0D	44.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2207.0	2346.1	724.0D	119.0			QL=6 ST=2 TYP=1
	15400	PALE	8	S	0137.6	0137.8	.2	25.0			QL=6 ST=3 TYP=3
	15400	PALE	8	S	0205.3	0206.1	1.0	32.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0206.0	0206.1	.3	24.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0445.3	0445.6	1.0	130.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0445.6	0445.8	.5	170.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0723.0	0723.6	1.0	38.0			QL=6 ST=2 TYP=3
	606	PALE	47	GB	1821.6	1821.8	.5	42.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2013.1	2014.3	4.2D	1000.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2014.1	2014.3	2.5	860.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	2014.1	2014.3	3.5	130.0			QL=6 ST=2 TYP=3
	15400	PALE	47	GB	2015.1	2015.8	6.9	50.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2101.8	2102.1	.5	1100.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2102.0	2102.1	1.1	1199.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2107.5	2107.8	.8	1199.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2107.6	2107.8	.5	1100.0			QL=6 ST=2 TYP=5
17	410	PALE	43	NS	1647.0	1702.5	509.0	190.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1647.0	1706.1	509.0	35.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2206.0	0014.1	289.0D	26.0			QL=6 ST=3 TYP=1
	245	LEAR	8	S	0346.8	0347.0	.3	38.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0346.8	0347.1	.7	55.0			QL=6 ST=3 TYP=3
	606	LEAR	8	S	0346.8	0347.1	.5	15.0			QL=6 ST=3 TYP=3
	410	SGMR	8	S	1703.0	1703.1	.3	350.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1758.8	1759.1	4.5D	8.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1759.0	1759.1	2.5D	5.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1800.5	1800.8	.6	26.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2003.0	2004.8	2.0	15.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2004.8	2005.3	1.3D	280.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	2337.3	2337.5	1.3	16.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	2337.3	2337.6	1.0	20.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2337.3	2337.6	.3	21.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	2353.1	2353.1	.2	42.0			QL=1 ST=3 TYP=3
	410	LEAR	47	GB	2353.1	2353.1	.2	870.0			QL=1 ST=3 TYP=5
	245	LEAR	47	GB	2353.1	2353.1	.2	480.0			QL=1 ST=3 TYP=5
18	245	LEAR	43	NS	2206.0	0014.1	289.0D	26.0			QL=6 ST=2 TYP=1
	15400	LEAR	8	S	0143.6	0144.0	.5	30.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0143.8	0143.8	.3	25.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0239.6	0239.8	.5	25.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0239.8	0239.8	.3	23.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0239.8	0239.8	.3	43.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0239.8	0240.0	.3	17.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0239.8	0240.1	.3	13.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1502.1	1503.0	2.7D	5.0			QL=3 ST=2 TYP=3
	15400	SGMR	4	S/F	1502.3	1503.0	3.2	11.0			QL=3 ST=2 TYP=3
	4995	SGMR	8	S	1535.0	1535.3	1.1D	11.0			QL=6 ST=3 TYP=3
	8800	SGMR	8	S	1535.1	1535.5	1.4	19.0			QL=6 ST=3 TYP=3
	4995	SGMR	8	S	1555.0	1555.3	1.1D	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1555.1	1555.5	1.4	19.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1820.8	1820.8	.3D	13.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1820.8	1821.0	.3	47.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1833.3	1833.5	.7	60.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
18	8800	SGMR	4	S/F	1932.0	1934.3	4.5D	52.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1932.3	1934.1	2.8	45.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1933.3	1934.3	2.7D	20.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2128.5	2129.5	4.1	2500.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	2247.1	2247.6	1.0	1000.0			QL=2 ST=2 TYP=5
	245	PALE	47	GB	2247.1	2247.6	.9	1300.0			QL=6 ST=2 TYP=5
	2695	PALE	8	S	2247.3	2247.5	.5	26.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2247.5	2247.6	.3	17.0			QL=6 ST=2 TYP=3
19	410	LEAR	43	NS	0610.6	0616.8	241.4D	8.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0610.8	0617.3	241.2D	43.0			QL=6 ST=2 TYP=1
	245	SGMR	43	NS	1106.0	1331.8	644.0D	160.0			QL=6 ST=2 TYP=1
	15400	LEAR	8	S	0000.0	0000.8		68.0			QL=6 ST=3 TYP=3
	8800	PALE	8	S	0000.0	0000.8		81.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0000.0	0000.8		70.0			QL=6 ST=3 TYP=3
	15400	PALE	4	S/F	0000.1	0000.8	7.9	66.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0000.1	0000.8	1.7	52.0			QL=6 ST=3 TYP=3
	4995	PALE	4	S/F	0000.1	0000.8	8.9	53.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0000.8	0001.1	.3D	13.0			QL=6 ST=3 TYP=3
	2695	PALE	4	S/F	0001.1	0001.3	1439.9	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0046.3	0047.5	1.8	24.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0046.3	0047.6	1.3	310.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0046.5	0047.6	1.3	490.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0211.5	0211.6	.6	17.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0211.5	0211.6	.3	2600.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0211.5	0211.6	.3	480.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0222.0	0222.1	.3	23.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0224.8	0224.8	.2	16.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	0251.3	0251.6	.3	28.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0313.6	0313.8	1.9	31.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0313.6	0314.3	.7D	17.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0538.8	0539.8	2.0	22.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0539.1	0539.8	1.0	18.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0552.8	0553.1	1.0	19.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0552.8	0553.1	.5	11.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0608.5	0608.6	1.0	8.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0608.5	0608.6	1.0	41.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0608.5	0608.6	1.3	20.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0836.5	0836.6	.3	360.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0836.6	0836.6	.2	17.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0938.5	0938.8	.8	30.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0938.6	0938.6	.2	19.0			QL=6 ST=2 TYP=3
20	245	LEAR	43	NS	2204.0	0055.3	729.0D	720.0			QL=6 ST=2 TYP=1
	8800	ATHN	4	S/F	0902.0	0903.3	5.3	29.0			QL=5 ST=2 TYP=4
	8800	LEAR	4	S/F	0902.1	0902.8	4.0	54.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0902.6	0903.0	.9	24.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1831.6	1832.0	.9	320.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1831.6	1832.1	2.0D	460.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1831.6	1832.1	1.2D	440.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1831.6	1832.1	2.2	61.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	1831.8	1832.0	.3	38.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1831.8	1832.1	.8	480.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	2305.1	2306.1	1.7	11.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	2305.5	2306.1	1.0	52.0			QL=6 ST=3 TYP=3
	8800	PALE	8	S	2306.1	2306.1	.2	42.0			QL=6 ST=2 TYP=3
21	245	SGMR	43	NS	1108.0	1407.6	639.0D	190.0			QL=6 ST=2 TYP=1
	8800	PALE	4	S/F	0042.6	0043.5	6.5	78.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0042.6	0043.5	1.0	23.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	0043.1	0043.5	.7	69.0			QL=6 ST=3 TYP=3
	4995	LEAR	8	S	0043.1	0043.5	.5	20.0			QL=6 ST=3 TYP=3
	245	LEAR	8	S	0544.3	0544.6	.5	85.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0629.8	0630.0	.3	370.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0636.1	0636.3	.4	46.0			QL=6 ST=2 TYP=3
22	245	SGMR	43	NS	1110.0	1334.3	635.0D	190.0			QL=6 ST=2 TYP=1
	4995	LEAR	47	GB	0000.0	0007.0		150.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0000.0	0007.0		110.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0002.5	0007.0	32.1	48.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	245	LEAR	47	GB	0005.1	0016.1	18.7	150.0			QL=6 ST=2 TYP=5
	8800	PALE	8	S	0021.3	0021.5	.3	35.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0150.8	0151.1	.5	29.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1532.3	1541.8	13.0D	110.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1532.5	1535.6	5.0D	21.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1532.8	1533.6	4.7D	3.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1532.8	1535.8	4.3	17.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1533.1	1535.6	5.9D	26.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	1533.1	1536.3	5.0D	490.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1534.5	1534.8	2.5D	1100.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	2237.3	2237.8	.5	23.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	2237.5	2237.6	.1	15.0			QL=6 ST=2 TYP=3
	1415	LEAR	47	GB	2359.5	0016.0	34.0	170.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	2359.8	0007.1	22.3	160.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	2359.8	0022.1	28.2	180.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	2359.8	0022.3	28.7	170.0			QL=6 ST=2 TYP=5
23	245	LEAR	43	NS	0904.5	0927.8	69.5D	88.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2202.0	0135.3	732.0D	300.0			QL=6 ST=2 TYP=1
	2695	PALE	47	GB	0000.0	0007.1		150.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	0000.0	0016.8		160.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	0000.1	0006.8	32.9	150.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	0001.8	0006.8	31.2	119.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	0003.3	0007.1	16.3	54.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0034.3	0037.0	13.7	170.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0034.8	0036.8	11.3	100.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0034.8	0036.8	12.8	72.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	0035.3	0036.6	8.3	67.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0126.8	0127.0	.3	16.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0134.6	0134.8	.4	44.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0134.6	0134.8	.2	50.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0134.6	0145.3	23.7	230.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0135.6	0136.6	23.5	46.0			QL=6 ST=2 TYP=5
	606	LEAR	8	S	0136.3	0136.6	.3	75.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	0249.6	0249.8	.2	26.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0334.1	0334.1	.2	35.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0334.1	0334.3	.2	24.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0436.1	0437.1	1.0D	13.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0437.6	0439.3	2.0	20.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0438.6	0442.8	7.7	270.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0441.3	0442.1	2.8	190.0			QL=6 ST=2 TYP=5
	606	LEAR	4	S/F	0441.5	0441.6	2.3	119.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0441.6	0442.3	2.0	31.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0441.8	0442.3	1.7	27.0			QL=6 ST=2 TYP=3
	2695	LEAR	47	GB	0442.0	0442.3	.3D	15.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0539.3	0539.6	2.7	85.0			QL=6 ST=2 TYP=5
	8800	MANI	47	GB	0731.0	0738.6	21.0	360.0			QL=6 ST=2 TYP=5
	606	LEAR	47	GB	0731.5	0738.1	8.6	6300.0			QL=6 ST=3 TYP=5
	1415	LEAR	47	GB	0731.6	0738.0	8.7	220.0			QL=6 ST=3 TYP=5
	2695	LEAR	47	GB	0731.8	0733.8	8.7	640.0			QL=6 ST=3 TYP=5
	410	LEAR	47	GB	0731.8	0738.1	8.3	3200.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	0734.8	0738.1	8.0	270.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0735.1	0738.3	5.0	490.0			QL=6 ST=2 TYP=3
	8800	LEAR	47	GB	0735.1	0738.6	7.5	510.0			QL=6 ST=2 TYP=5
	15400	LEAR	4	S/F	0737.1	0738.3	4.5	430.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	0738.0	0739.0	5.0	540.0			QL=6 ST=2 TYP=5
	410	LEAR	4	S/F	0745.1	0746.6	7.4	270.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0745.1	0748.0	9.7	110.0			QL=6 ST=2 TYP=3
	606	LEAR	47	GB	0745.3	0747.8	7.0	540.0			QL=6 ST=2 TYP=5
	245	LEAR	4	S/F	0745.5	0747.3	6.1	160.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0745.6	0748.0	8.5	61.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0745.6	0748.0	7.5	110.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0746.1	0747.6	4.5	15.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0747.0	0748.0	8.0	52.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1033.5	1034.6	14.1D	60.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1033.6	1034.3	13.2	130.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1033.6	1034.3	18.7D	290.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1042.1	1043.8	4.0D	21.0			QL=6 ST=2 TYP=4
	4995	ATHN	4	S/F	1211.8	1221.6	23.8D	37.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	1216.3	1227.0	18.3	24.0			QL=6 ST=2 TYP=4

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
23	2695	ATHN	4	S/F	1217.5	1222.0	13.1D	34.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	1218.6	1226.1	9.7D	54.0			QL=6 ST=2 TYP=4
	8800	SGMR	47	GB	1219.1	1221.6	10.4	28.0			QL=6 ST=2 TYP=5
	606	SGMR	4	S/F	1457.6	1500.3	4.4D	67.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1459.5	1500.5	1.8D	69.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1459.6	1500.6	2.2	20.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1753.0	1753.1	.1	26.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1753.0	1753.1	.1	36.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1909.1	1911.5	3.0D	31.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1911.1	1912.0	1.4	11.0			QL=6 ST=2 TYP=3
	606	SGMR	4	S/F	2000.5	2001.6	3.0D	33.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	2000.8	2003.3	3.2D	70.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	2001.0	2002.0	2.8	42.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2001.3	2003.3	2.3	91.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	2034.8	2035.0	1.0D	240.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2034.8	2035.0	.3	57.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	2034.8	2035.0	.8D	42.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	2034.8	2035.1	1.7D	16.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	2035.0	2035.1	1.0	44.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	2035.0	2035.1	.1	42.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2035.0	2035.1	.1	25.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2035.0	2035.1	.3	70.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2035.1	2035.3	.9D	49.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	2035.8	2036.1	.5D	29.0			QL=6 ST=2 TYP=3
24	245	SGMR	43	NS	1112.0	1756.1	630.0D	119.0			QL=6 ST=2 TYP=1
	606	LEAR	4	S/F	0028.5	0030.3	3.8	44.0			QL=6 ST=3 TYP=3
	410	LEAR	4	S/F	0028.8	0030.0	3.5	23.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	0029.0	0031.3	5.6	150.0			QL=6 ST=3 TYP=3
	1415	MANI	4	S/F	0029.1	0030.6	5.2D	210.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0029.3	0030.6	3.0	250.0			QL=6 ST=3 TYP=3
	606	MANI	4	S/F	0029.8	0030.6	2.8D	19.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0030.0	0031.6	3.6	9.0			QL=6 ST=3 TYP=3
	1415	PALE	8	S	0030.1	0030.5	1.2	190.0			QL=6 ST=2 TYP=3
	2695	MANI	4	S/F	0030.1	0031.8	3.2	130.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0030.3	0031.3	1.2	130.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0145.3	0145.5	.3	19.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0309.8	0310.0	.3	19.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1333.3	1337.3	7.7D	15.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1335.8	1337.3	3.7	16.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2221.8	2222.1	3.3	41.0			QL=6 ST=2 TYP=5
	2695	LEAR	8	S	2222.8	2224.0	1.3	16.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	2223.3	2224.5	1.3	26.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	2349.1	2349.1	.2	71.0			QL=6 ST=2 TYP=3
25	245	LEAR	43	NS	0005.0	0206.3	415.0D	160.0			QL=6 ST=2 TYP=1
	15400	LEAR	4	S/F	0537.8	0539.8	6.0	61.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0537.8	0539.8	3.7	77.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0538.1	0539.8	4.2D	41.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0538.1	0539.8	2.4	38.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0538.1	0540.0	4.2	59.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0538.6	0539.8	3.0D	18.0			QL=6 ST=2 TYP=3
	1415	MANI	47	GB	0752.1	0803.5	34.5D	119.0			QL=6 ST=2 TYP=5
	2695	MANI	4	S/F	0757.1	0803.5	17.9D	40.0			QL=6 ST=2 TYP=4
	1415	ATHN	4	S/F	0759.0	0803.1	8.6D	99.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0800.1	0803.1	7.7D	29.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0800.1	0803.1	10.0D	17.0			QL=6 ST=2 TYP=3
	4995	MANI	4	S/F	0801.5	0803.8	12.1	57.0			QL=6 ST=2 TYP=4
	8800	ATHN	4	S/F	0801.6	0804.6	9.2	76.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0819.0	0820.6	7.3D	7.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0819.0	0820.6	5.6D	26.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	0819.0	0820.8	6.0	28.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	0819.5	0820.6	4.0D	8.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	0940.8	0948.3	18.3	930.0			QL=6 ST=2 TYP=5
	4995	PALE	8	S	2213.5	2213.6	.3	18.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2213.5	2213.6	.3	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2218.8	2219.0	.3	27.0			QL=6 ST=2 TYP=3
26	4995	LEAR	8	S	0002.0	0002.3	1.0	34.0			QL=6 ST=3 TYP=3
	2695	LEAR	8	S	0002.0	0002.6	1.0	11.0			QL=6 ST=3 TYP=3

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

OCTOBER 1980

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
26	15400	LEAR	8	S	0002.0	0002.6	1.0	10.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	0002.0	0002.6	1.0	29.0			QL=6 ST=3 TYP=3
	4995	PALE	8	S	0002.1	0002.3	.7	24.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0032.1	0033.5	1.7	1399.0			QL=6 ST=2 TYP=5
27	245	LEAR	43	NS	0725.8	0806.3	170.2	119.0			QL=6 ST=2 TYP=1
	1415	LEAR	8	S	0724.8	0724.8	.2	21.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0812.1	0812.3	.2	42.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0907.1	0907.1	2.0	150.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1722.3	1723.1	2.3	11.0			QL=6 ST=2 TYP=4
	4995	PALE	8	S	2159.8	2200.0	.3	17.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2159.8	2200.0	.5	23.0			QL=6 ST=2 TYP=3
	1415	PALE	47	GB	2234.3	2237.1	3.3	750.0			QL=6 ST=2 TYP=5
28	245	SGMR	43	NS	1738.1	1809.1	237.9D	33.0			QL=6 ST=2 TYP=1
	606	SGMR	4	S/F	1238.5	1239.0	2.5D	139.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1238.5	1239.1	2.0D	53.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1238.6	1239.0	2.0	310.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1238.6	1239.1	2.0D	230.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1738.1	1738.1	.9	25.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1857.1	1859.3	4.0D	16.0			QL=3 ST=2 TYP=3
	15400	SGMR	8	S	1858.6	1859.1	1.9	8.0			QL=3 ST=2 TYP=3
	2695	LEAR	8	S	2228.8	2229.1	.5	21.0			QL=6 ST=2 TYP=3
29	245	LEAR	43	NS	2229.6	2347.6	707.4D	470.0			QL=6 ST=2 TYP=1
	8800	SGMR	4	S/F	1140.3	1141.6	2.7D	22.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1140.5	1141.5	3.1D	37.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1140.6	1141.5	1.0D	10.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1140.8	1141.5	1.8	20.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1140.8	1141.5	1.0D	65.0			QL=6 ST=2 TYP=3
30	606	LEAR	4	S/F	0204.0	0205.6	2.3	28.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0204.1	0205.6	2.5	61.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0204.3	0205.6	2.0	23.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0204.6	0205.6	1.2	56.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0205.5	0205.6	.1	210.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0241.1	0441.3	120.4	55.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0315.1	0315.3	1.2	27.0			QL=6 ST=2 TYP=3
	245	SGMR	4	S/F	1614.1	1617.0	3.2	170.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1915.6	1917.1	2.5D	9.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1916.0	1917.1	2.6	13.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1916.3	1917.1	1.5	20.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1916.8	1917.1	1.0D	31.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1932.8	1933.3	1.0D	210.0			QL=6 ST=2 TYP=3
	606	SGMR	8	S	1933.0	1933.1	.6	23.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1933.1	1933.3	.7D	200.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	2330.3	2330.6	.3	15.0			QL=6 ST=3 TYP=3
31	245	SGMR	43	NS	1121.0	1234.1	611.0D	78.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0117.1	0118.6	1.9	640.0			QL=6 ST=3 TYP=5
	245	LEAR	8	S	0358.3	0358.6	.3	100.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0903.0	0903.5	1.6	50.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0903.1	0903.5	1.4	89.0			QL=6 ST=2 TYP=3
	606	LEAR	8	S	0932.5	0932.8	.6	139.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0932.5	0933.0	.8	250.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0932.6	0932.8	1.4	270.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0936.6	0937.3	.7D	490.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1250.8	1250.8	.3	150.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1250.8	1251.0	.3D	71.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1255.3	1255.5	.5	1500.0			QL=6 ST=3 TYP=5
	245	SGMR	47	GB	1304.0	1304.1	.8	1100.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1402.0	1402.1	.3D	15.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1402.0	1402.1	.6	87.0			QL=6 ST=2 TYP=3

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